






LID SUPPORTS



































SOFT-CLOSE & LIFT ASSIST & FREE STOP STAYS

Picture	Item Name	Door Weight (kg)	Opening	Page
	S-AT NEW	-	UPPER LID	491-6
	SLS-ELAN	Torque Moment: 50 - 100 kgf-cm/pc	UPWARD	494 - 495
	EZS-ELAN	5 - 12.5	UPWARD	496 - 497
	SLU-ELAN	5 - 11	UPWARD	498
	HBF-ELAN	2.5 - 6.5	UPWARD	499









































SOFT-CLOSE STAYS

Picture	Item Name	Torque Moment (kgf-cm)	Opening	Page
	LAD-ST NEW	Door Weight: 81.6 - 163.2 kg	TOP-OPENING	491-1 - 491-2
	LADH NEW	Door Weight: 255 - 510 kg	TOP-OPENING	491-3 - 491-4
	LAD-SPT NEW	-	-	491-5
	HBFN	Door Weight: 2.5 - 5.5 kg	UPWARD	500 - 501
	SLUN-N	Door Weight: 2.8 - 5.8 kg	UPWARD	502
	SLD	Door Weight: 3 - 6 kg	DOWNWARD	503
	HDS-10	140 - 300/pair	DOWNWARD	504
	HDS-20	140 - 300/pair	TOP-OPENING	505
	HDS-30	140 - 300/pair	UPWARD	506
	HDSN-30	140 - 300/pair	UPWARD	507
	HDS-10S (Self-closing)	60 - 180/pair	DOWNWARD	508
	HDS-20S (Self-opening)	70 - 150/pair	TOP-OPENING	509
	SDS-(C)100	35 - 50/pc	DOWNWARD	510






Picture	Item Name	Torque Moment (kgf.cm)	Opening	Page
	SDS-(C)100-TV	5 - 37.6/pc	DOWNWARD	511
	SDS-200, 201, 210	35 - 50/pc	TOP-OPENING	512
	SDS-C301N	40 - 70/pc	UPWARD	513
	CSD-10-TV	10.2 - 40.8/pc	DOWNWARD	514
	NSD-10	20 - 70/pc	DOWNWARD	515
	NSD-20	20 - 70/pc	TOP-OPENING	516
	NSD-35	20 - 70/pc	UPWARD	517
	NSDX-10	20 - 70/pc	DOWNWARD	518
	NSDX-10K-TV	10 - 20/pc	DOWNWARD	519
	NSDX-20	20 - 70/pc	TOP-OPENING	520
	NSDX-35	20 - 70/pc	UPWARD	521
	UDD	5.1 - 30.6/pc	DOWNWARD	523
	LAD	81.6 - 163.2/pc	TOP-OPENING	524 - 525
	OV-EZ	Door Weight: 2.5 - 7 kg	UPWARD	526 - 527
	OVN	Door Weight: 3 - 7 kg	UPWARD	528
	OV-1	Door Weight: 3 - 5 kg	UPWARD	529
	IF	25 - 140/set	UPWARD	530 - 531

LID STAYS







Picture	Item Name		Load Capacity (kgf)	Opening	Page
	ALT-3H		Door Weight: 5 kg	UPWARD	532 - 533
	S-24, 27, 25		-	DOWNWARD	534
	S-6, 16		-	TOP-OPENING	534
	S-19		-	TOP-OPENING	535
	S-20		-	TOP-OPENING	535
	S-21		-	TOP-OPENING	536
	S-23		-	TOP-OPENING	536
	S-35		-	DOWNWARD	537
	S-34		-	DOWNWARD	537
	BF-2		Door Weight: 6 kg	DOWNWARD	538
	HS		-	DOWNWARD	539
	KLS		Door Weight: 8 kg	TOP-OPENING	539
	L-100S, 140S	 	6/pc	UPWARD	540
	L-200P		15/pc	UPWARD	541
	L-SL140		15/pc	UPWARD	542
	L-FS140		6/pc	UPWARD	542
	L-195, 270		15/pc	UPWARD	544
	LK-222, 335, 380		Door Weight: 2.5 - 4.3 kg	UPWARD/ TOP-OPENING	545
	LB-215, 290		15/pc	UPWARD	546
	LB-200A, 350A, 500A		20 - 30/pc	UPWARD	547

Picture	Item Name		Load Capacity (kgf)	Opening	Page
	LSP-195B, 270B		30/pc	UPWARD	548
	L-FS350A		30/pc	UPWARD	549
	U3012HL		Door Weight: 20 kg	DOOR STOPPER	550
	U-3031HL		Door Weight: 5 kg	UPWARD	550

FREE-STOP STAYS

Picture	Item Name		Torque Moment (kgf.cm)	Opening	Page
	S-100T30		30.6/pc	TOP-OPENING/ DOOR STOPPER	551
	S-52T15		15.3/pc	TOP-OPENING	551
	S-TAR		75/pc 82/pc 94/pc	UPWARD/ TOP-OPENING/ DOWNWARD	552 - 553

LIFT ASSIST STAYS

Picture	Item Name		Torque Moment (kgf.cm)	Opening	Page
	S-YT		30, 40/pc	TOP-OPENING	554
	S-AT		62 - 120/pc	TOP-OPENING	555
	S-AT02W		153 - 214/pc	TOP-OPENING	556 - 557

LIFT-ASSIST DAMPER (WITH STOPPER)



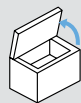
L=R

INSTRUCTION

LAD-ST



Lift-assist
Soft-close
Passed 100,000 open/close private cycle test

Opening Direction	Item Name	Description	Non-handed	Maximum Door Moment
 Top-opening	LAD-ST-L	Lift-assist	Yes	8.0 - 10.5 N-m/pc (81.6 - 107.1 kgf-cm/pc)
	LAD-ST-M			10.5 - 13.5 N-m/pc (107.1 - 137.7 kgf-cm/pc)
	LAD-ST-H	Soft-close		13.5 - 16.0 N-m/pc (137.7 - 163.2 kgf-cm/pc)

Features

- Ideal solution for counter flaps at bars, restaurants, and reception counters.
- Smooth and soft close movement near closing radius prevents flaps from slamming. Damper function works even if the flap is only opened slightly.
- Lift-assist mechanism with light opening.
- Stops flap at 95° opening with stopper.
- Suitable for flap thickness of 15 - 40 mm.
- Can be attached to already installed counters without extra processing.
- Installation position can be easily determined with the supplied template.

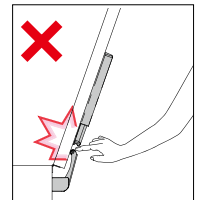
Specifications

Operating temperature: 0°C - 40°C

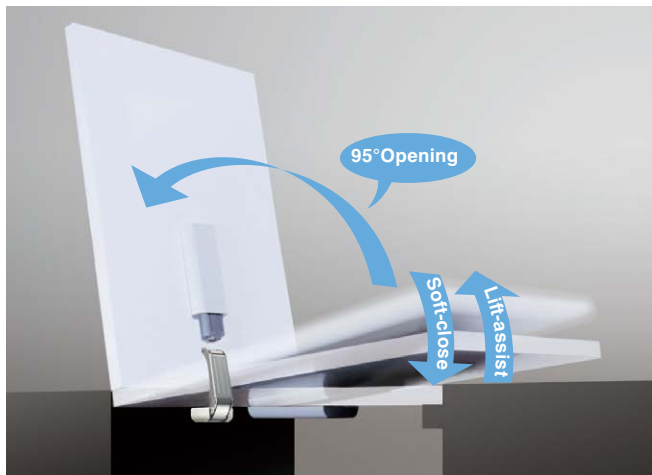
Remarks

- Make sure to have sufficient hinge strength and board material strength at the side from which the flap is suspended (rotates).
- Cannot use more than two sets on a single flap.
- While open, the flap is not held firmly in position.
- Use a single axis hinge on the suspended (rotating) side of the flap. Another possibility is to use the R series concealed hinges for combined use.
- Do not use kitchen concealed hinges.
- Closed flap will not be held in place with this product alone. Please install some type of catch on the side of the flap that lifts up.
- Do not use more force than is necessary to open or close the flap.
- Ensure that the distance from mounting surface of damper unit and stopper to flap surface is 15 - 40 mm (see drawing).
- Be careful not to get fingers caught between arm unit and damper unit.
- Do not use in combination with spacer LAD-DP (for thick door) and bracket for back mount LAD-BKT (for horizontal installation).

Selection Tool
Sasuga-kun
Applicable Products
Used for Product Selection & Simulation.
Available on Web!



Application Example

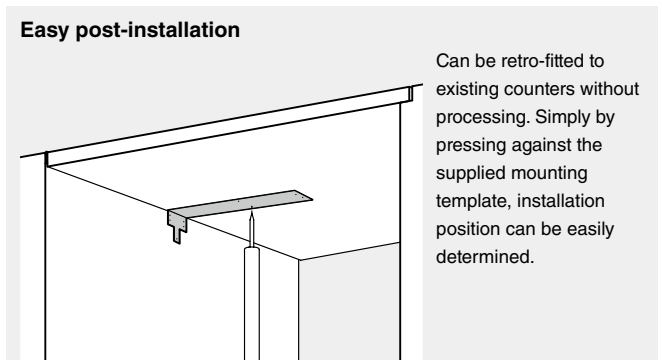
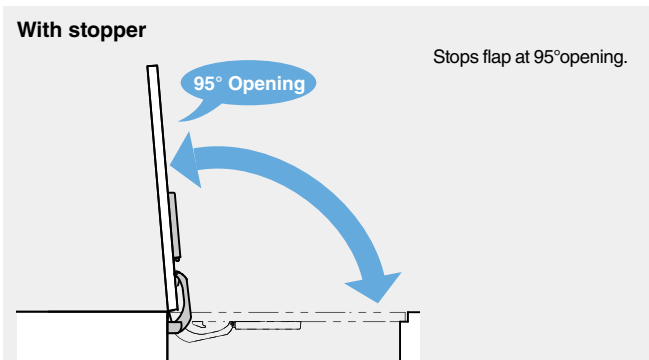
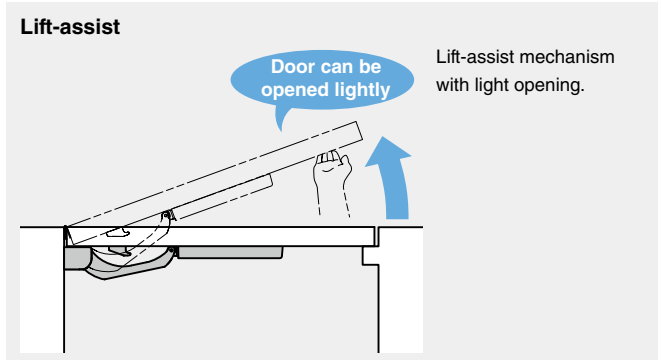
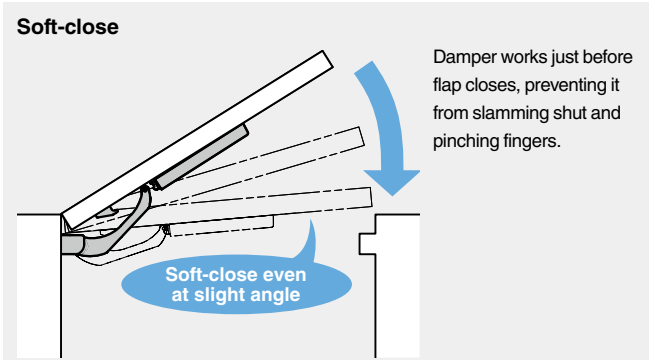


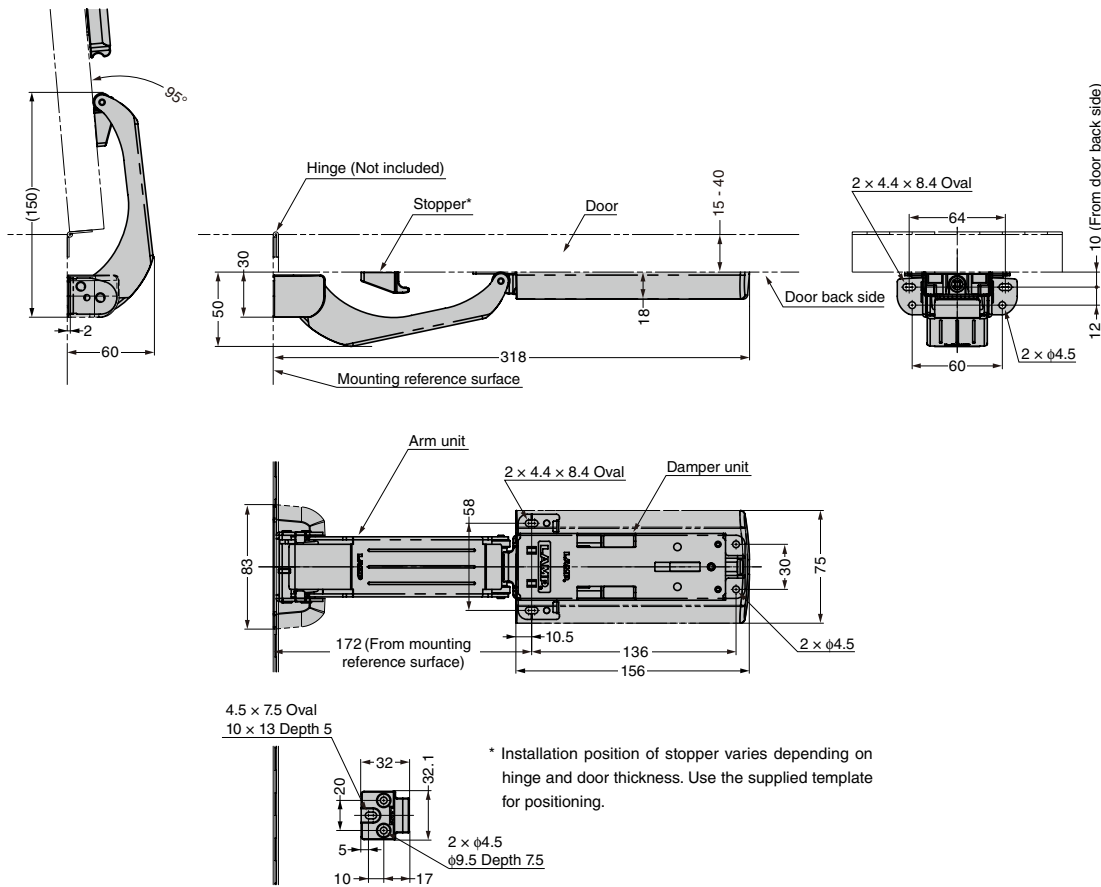
LID SUPPORTS

LIFT-ASSIST DAMPER (WITH STOPPER)

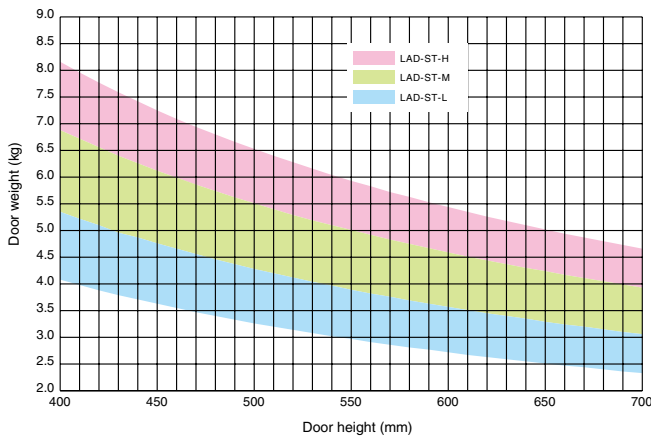
Parts Included

- Binding head tapping screw 4 × 16
- Template for positioning





[Door Size Ranges] 1pc use only



Refer to the left graph as a guide for model selection. When using a door with size not given here, calculate the door moment as follows. Door weight includes attached decorations.

Maximum Door Moment (N-m)
 = Door weight (kg) × 9.80665 × Distance from rotation centre to door centre of gravity (m)

CAD	Item Code	Item Name	Material	Finish	Maximum Door Moment N-m/pc	Maximum Door Moment kgf-cm/pc	Recommended Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
EP30	170-033-213	LAD-ST-L	ABS/POM/Steel/Zinc	Zinc Chromate/Nickel Chrome/	8.0 - 10.5	81.6 - 107.1	15 - 40	750	1	10
EP30	170-033-214	LAD-ST-M			10.5 - 13.5	107.1 - 137.7				
EP30	170-033-215	LAD-ST-H	Alloy (ZDC)	Nickel	13.5 - 16.0	137.7 - 163.2				



LADH

LIFT-ASSIST DAMPER (FOR HEAVY DUTY)

Passed 100,000 open/close private cycle test



Opening Direction	Item Name	Description	Non-handed	Maximum Door Moment
 Top-opening	LADH-35	Lift-assist	Yes	25 - 35 N-m/pc (255 - 357 kgf-cm/pc)
	LADH-50	Soft-close		35 - 50 N-m/pc (357 - 510 kgf-cm/pc)

Features

- Ideal for counter flaps at bars, restaurants, and reception counters.
- Smooth and soft close movement near closing radius prevents flaps from slamming. Damper function works even if the flap is only opened slightly.
- Suitable for door moment of 25 - 50 N-m.
- Lift-assist mechanism with light opening.
- Stops flap at 95° opening with stopper.
- Installation position can be easily determined with the supplied template.
- Can be attached to already installed counters without extra processing.

Applications

Counter flaps, etc.

Remarks

- Do not use more than two sets on one flap
- While open, the flap is not held firmly in position
- Make sure to have sufficient hinge strength and board material strength at the side from which the flap is suspended (rotates).
- Do not use in combination with multi-axis hinges.
- Closed flap will not be held in place with this product alone. Please install some type of catch on the side of the flap that lifts up.

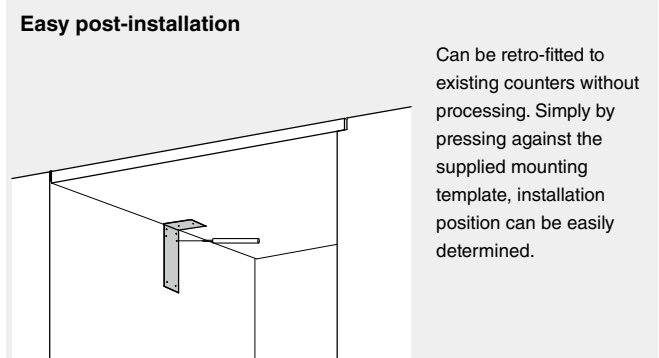
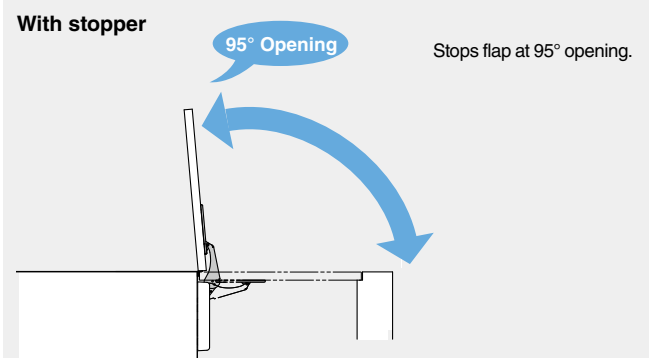
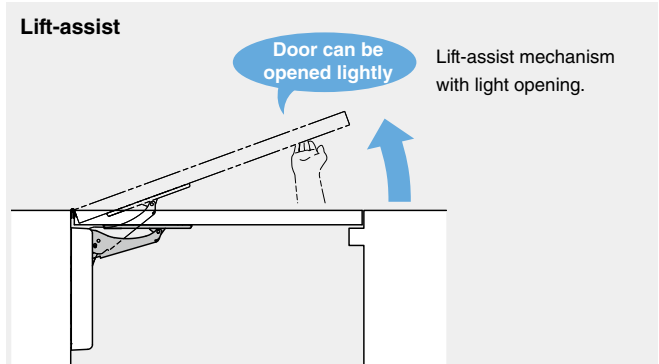
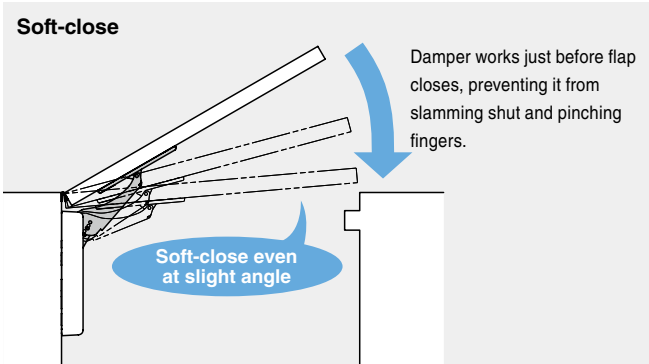
Parts Included

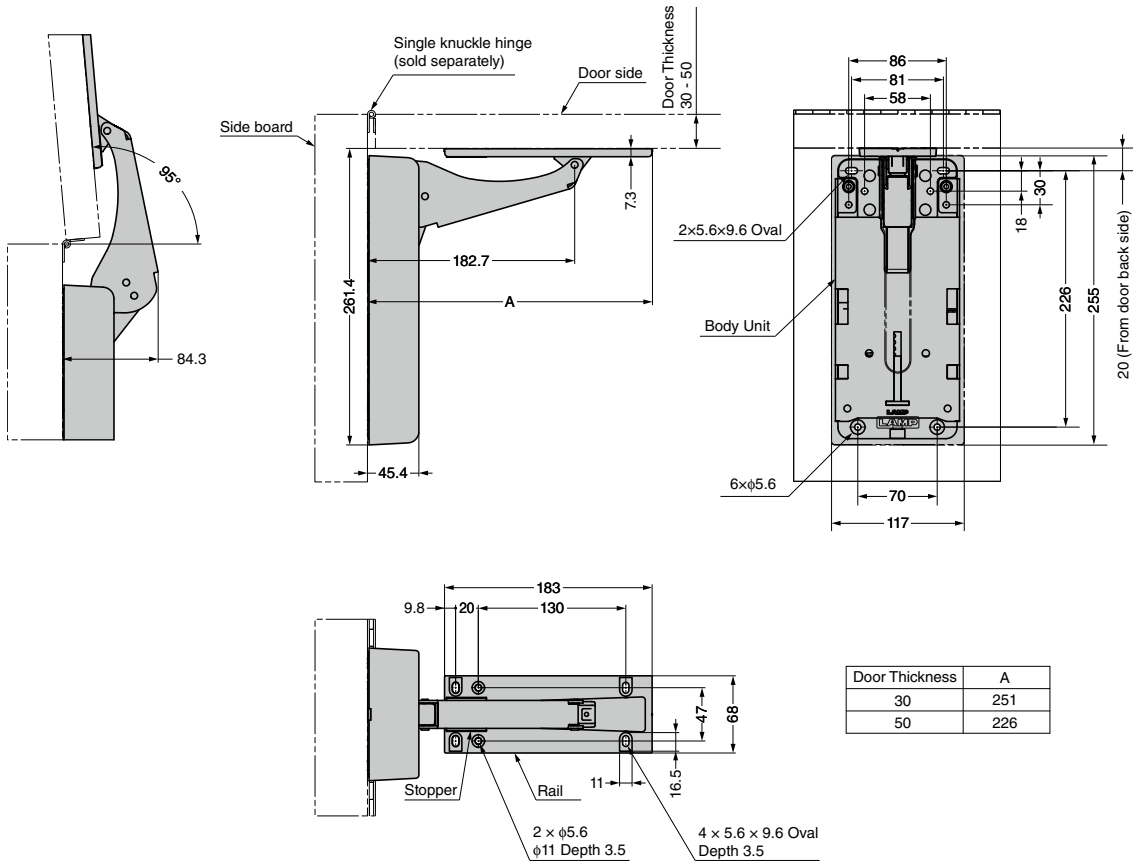
- Binding head tapping screw 5.1 x 20
- Paper template

LID SUPPORTS

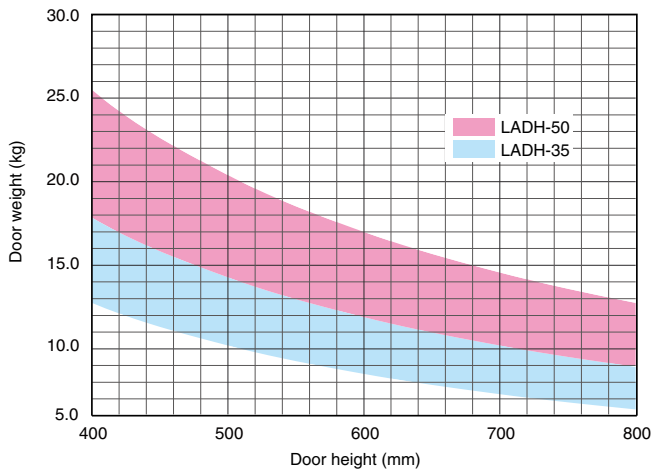
LIFT-ASSIST DAMPER (FOR HEAVY DUTY)

Application Example





Door Size Ranges



Refer to the left graph as a guide for model selection. When using a door with size not given here, calculate the door moment as follows. Door weight includes attached decorations.

Maximum Door Moment (N·m)
 = Door weight (kg) × 9.80665 × Distance from rotation centre to door centre of gravity (m)

CAD	Item Code	Item Name	Material	Finish	Maximum Door Moment N-m/pc	Maximum Door Moment kgf-cm/pc	Recommended Thickness (mm)	Weight (kg)	Box (pcs)	Carton (pcs)
	170-034-868	LADH-35	Steel (SPCC)	Nickel Plating/Nickel	25 - 35	255 - 357	30 - 50	2	1	4
	170-034-869	LADH-50	Polyacetal (POM)/ABS	Chrome/Dark Brown	35 - 50	357 - 510			1	4

MOUNTING PLATE FOR LAD

INSTRUCTION

LAD-SPT

LID SUPPORTS

MOUNTING PLATE FOR LAD



Features

A plate to reinforce the surface where the LAD Lift-Assist Damper or LAD-ST Arm Unit is mounted.

Remarks

- Use the single-side type when the lateral plate thickness is 20 mm or greater, and the double-sided type if the thickness is 15 - 19 mm.
- Two plates are required when using the double-sided type.
- Cannot be used with the LAD-DP Spacer for thick plates or the LAD-BKT Bracket for Back Mount.

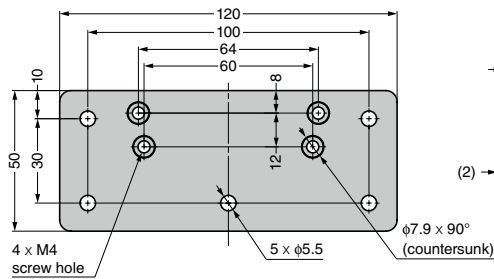
Parts Included

Size M4 x 8 binding screws

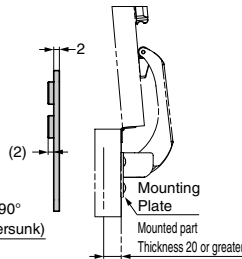
Recommended Screw

- Single-side type: Size 5 x 20 or larger cross-recessed truss tapping screws
- Double-sided type: Size M5 cross-recessed truss screws and flat washers, spring washers and nuts for M5 screws

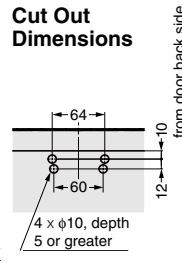
Application Example



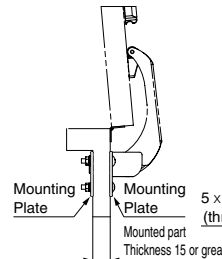
Single-side Type



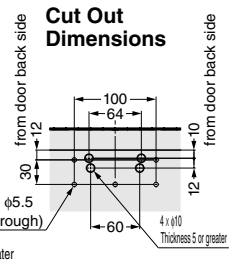
Cut Out Dimensions



Double-sided Type



Cut Out Dimensions



CAD	Item Code	Item Name	Material	Weight (g)	Box (pcs)	Carton (pcs)
	170-034-754	LAD-SPT	Stainless Steel	130	10	50

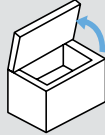
ADJUSTABLE LIFT ASSIST STAY (SIDE PANEL MOUNT, BACK PANEL MOUNT)

L=R

S-AT

INSTRUCTION



Opening method	Specifications
 Upper lid	Side Panel Mount
	Back Panel Mount

Features

- Spring powered power assist makes flaps feel lighter and easier to lift.
- Can hold its position between approximately 10° and 80°.
- The maximum torque angle can be adjusted by turning the adjustment screw with a hex bar spanner.
- Compact hinge size reduces dead space and enables effective use of space inside.
- Options for either side panel mount type or back panel mount type.
- Both types are compatible with left- and right-handed flaps.
- Choose between a strong spring force or a weak spring force depending on the size and material of the flap.
- Other options include the S-AT, which does not have a torque adjustment function, and the S-AT02W, which has the largest maximum moment.

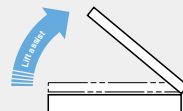
Specifications

- Operating temperature: 0°C - 40°C
- Operating humidity: 90% RH or lower
- Contact us if your operating environment is outside this range.

Remarks

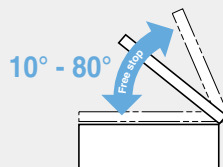
- Read all remarks on handling thoroughly before use.
- Install a separately prepared stopper for the upper lid so that a pitch greater than the opening angle is not applied.
- The material of the installation surface also needs to be taken into account. Mounting to a surface without sufficient rigidity may cause deformation or breakage.
- This product is not designed for continuous opening and closing.
- Do not use outside.
- The rebound strength may change somewhat over time. This product may also be unable to hold some upper lids depending on the weight and centre of gravity. Contact us for details.
- Do not use this product together with a multi-axis hinge.

Easy operation with lift assist



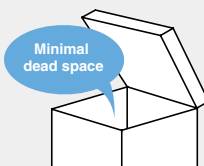
Spring mechanism assists in lifting the top-opening lid. You can select either hard or soft spring tension depending on lid weight and dimension.

Free stop



Easily holds the opening angle of top-opening lid at about 10° - 80°.

Compact



Small body maximises space inside of the cabinet.

LID SUPPORTS

ADJUSTABLE LIFT ASSIST STAY (SIDE PANEL MOUNT, BACK PANEL MOUNT)

Lapcon comes from LAMP CONTROL

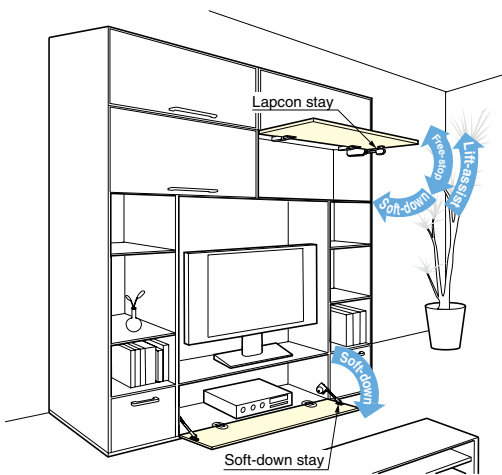


Lapcon series products provide the smoothest opening and closing system imaginable, equipped with Sugatsune's build-in patented dampening device. As a Lapcon opens and closes, it moves with quiet assurance. Lapcon products also provide safety to your application with its revolutionary damper. Doors and lids will come down slowly and softly which eliminates slamming doors or pinched fingers.



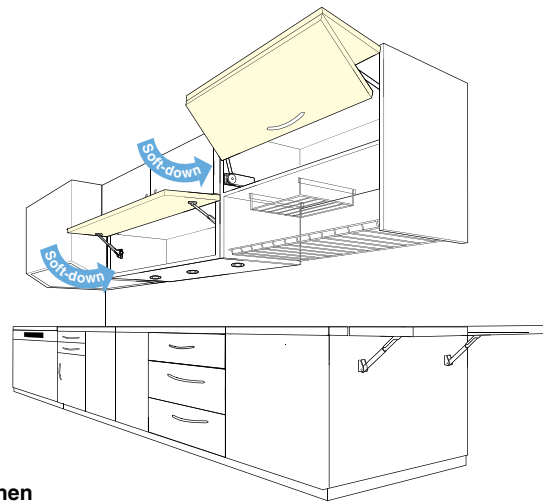
LID SUPPORTS

LAPCON SERIES



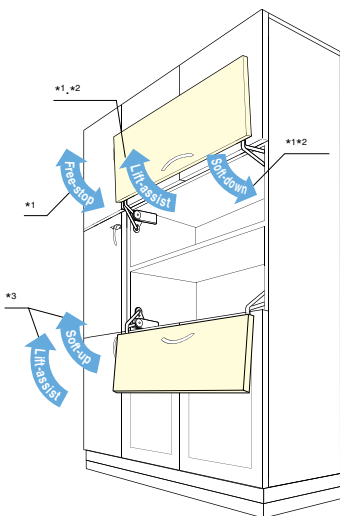
Living

- Soft-down
SDS-100 (P.510)
SDS-100-TV (P.511)
NSDX-10 (R/L) (P.518)
- Lapcon stay
SLS-ELAN (P.494)



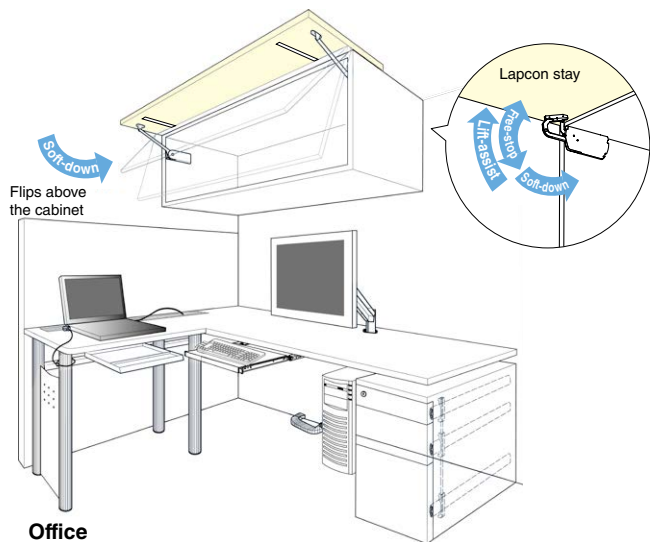
Kitchen

- Soft-down
SDS-C301N (P.513)
NSDX-35 (R/L) (P.521)
HDS-30 (P.506)
HDSN-30 (P.507)
- Horizontal bi-folding
HBF-ELAN (P.499)
HBFN (P.500 - 501)



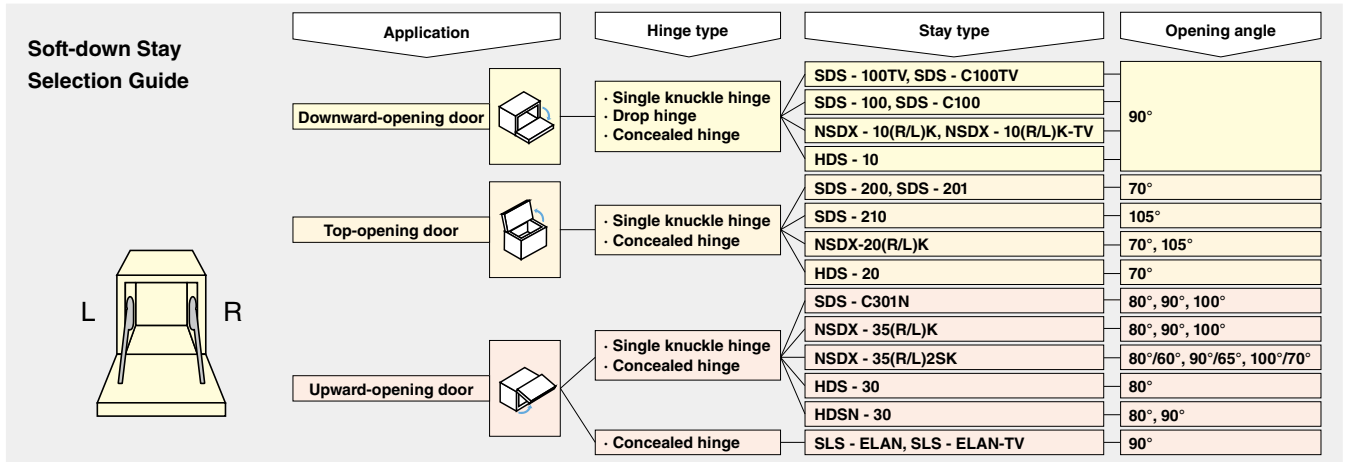
Kitchen

- Swing lift-up
*1: SLU-ELAN (P.498)
*2: SLUN-N (P.502)
- Swing lift-down
*3: SLD (P.503)



Office

- Flips above the cabinet
OV-EZ (P.526 - 527)
OVN (P.528)
OV-1 (P.529)
- Lapcon stay
EZS-ELAN (P.496 - 497)



SDS Selection Guide

Door Height	SDS-100-TV/SDS-C100-TV		SDS-100-TVZ/SDS-C100-TVZ		SDS-100/SDS-C100/SDS-200/SDS-201/SDS-210		SDS-C301N	
	Door Weight/pc	Door Weight/pair	Door Weight/pc	Door Weight/pair	Door Weight/pc	Door Weight/pair	Door Weight/pc	Door Weight/pair
200	0.50 - 1.20 kg	1.00 - 2.40 kg	1.65 - 3.76 kg	3.30 - 7.52 kg	-	-	-	-
250	0.40 - 0.96 kg	0.80 - 1.92 kg	1.32 - 3.01 kg	2.64 - 6.02 kg	2.80 - 4.00 kg	5.60 - 8.00 kg	3.20 - 5.60 kg	6.40 - 11.20 kg
300	0.34 - 0.80 kg	0.67 - 1.60 kg	1.10 - 2.51 kg	2.20 - 5.01 kg	2.34 - 3.33 kg	4.67 - 6.66 kg	2.67 - 4.66 kg	5.34 - 9.33 kg
350	0.29 - 0.68 kg	0.58 - 1.37 kg	0.94 - 2.15 kg	1.89 - 4.30 kg	2.00 - 2.85 kg	4.00 - 5.71 kg	2.29 - 4.00 kg	4.58 - 8.00 kg
400	0.25 - 0.60 kg	0.50 - 1.20 kg	0.83 - 1.88 kg	1.65 - 3.76 kg	1.75 - 2.50 kg	3.50 - 5.00 kg	2.00 - 3.50 kg	4.00 - 7.00 kg
450	0.23 - 0.53 kg	0.45 - 1.06 kg	0.73 - 1.67 kg	1.47 - 3.34 kg	1.56 - 2.22 kg	3.12 - 4.44 kg	1.78 - 3.11 kg	3.56 - 6.22 kg
500	-	-	0.66 - 1.50 kg	1.32 - 3.01 kg	1.40 - 2.00 kg	2.80 - 4.00 kg	1.60 - 2.80 kg	3.20 - 5.60 kg

NSDX Selection Guide

Door Height	NSDX-10 (R/L) K-TV		NSDX-10 (R/L) K		NSDX-20 (R/L) K		NSDX-35 (R/L) 2SK	
	Door Weight/pc	Door Weight/pair	Door Weight/pc	Door Weight/pair	Door Weight/pc	Door Weight/pair	Door Weight/pc	Door Weight/pair
200	1.00 - 2.00 kg	2.00 - 4.00 kg	1.60 - 5.60 kg	3.20 - 11.20 kg	1.60 - 4.00 kg	3.20 - 8.00 kg	-	-
250	0.80 - 1.60 kg	1.60 - 3.20 kg	1.34 - 4.66 kg	2.67 - 9.33 kg	1.33 - 3.33 kg	2.67 - 6.66 kg	-	-
300	0.67 - 1.33 kg	1.34 - 2.66 kg	1.15 - 4.00 kg	2.29 - 8.00 kg	1.14 - 2.85 kg	2.29 - 5.71 kg	-	-
350	0.58 - 1.14 kg	1.15 - 2.29 kg	1.00 - 3.50 kg	2.00 - 7.00 kg	1.00 - 2.50 kg	2.00 - 5.00 kg	-	-
400	0.50 - 1.00 kg	1.00 - 2.00 kg	0.89 - 3.11 kg	1.78 - 6.22 kg	0.89 - 2.22 kg	1.78 - 4.44 kg	-	-
450	0.45 - 0.89 kg	2.39 - 1.78 kg	0.80 - 2.80 kg	1.60 - 5.60 kg	0.80 - 2.00 kg	1.60 - 4.00 kg	-	-

SLS-ELAN Selection Guide

Door Height	SLS-ELAN-M (R/L)		SLS-ELAN-H (R/L) -TV		SLS-ELAN-H (R/L)	
	Door Weight/pc	Door Weight/pair	Door Weight/pc	Door Weight/pair	Door Weight/pc	Door Weight/pair
300	-	-	3.13 - 4.20 kg	6.26 - 8.40 kg	-	-
350	2.86 - 4.28 kg	5.72 - 8.57 kg	2.69 - 3.60 kg	5.38 - 7.20 kg	4.29 - 5.71 kg	8.58 - 11.42 kg
400	2.50 - 3.75 kg	5.00 - 7.50 kg	-	-	3.75 - 5.00 kg	7.50 - 10.00 kg
450	2.23 - 3.33 kg	4.45 - 6.66 kg	-	-	3.00 - 4.00 kg	6.00 - 8.00 kg
500	2.00 - 3.00 kg	4.00 - 6.00 kg	-	-	-	-

HDS Selection Guide

Door Height	HDS-10K	HDS-10M	HDS-10H
	HDS-20K HDS-30K	HDS-20M HDS-30M	HDS-20H HDS-30H
	Door Weight/pair	Door Weight/pair	Door Weight/pair
300	9.34 - 13.33 kg	13.34 - 16.66 kg	16.67 - 20.00 kg
350	8.00 - 11.42 kg	11.43 - 14.28 kg	14.29 - 17.14 kg
400	7.00 - 9.99 kg	10.00 - 12.49 kg	12.50 - 15.00 kg
450	6.23 - 8.88 kg	8.89 - 11.11 kg	11.12 - 13.33 kg
500	5.60 - 7.99 kg	8.00 - 9.99 kg	10.00 - 12.00 kg
550	5.10 - 7.27 kg	7.28 - 9.09 kg	9.10 - 10.90 kg
600	4.67 - 6.66 kg	6.67 - 8.33 kg	8.34 - 10.00 kg

HDSN Selection Guide

Door Height	Opening Angle 90°				Opening Angle 80°			
	HDSN-30K	HDSN-30M	HDSN-30H	HDSN-30S	HDSN-30K	HDSN-30M	HDSN-30H	HDSN-30S
	Door Weight/pair	Door Weight/pair	Door Weight/pair	Door Weight/pair	Door Weight/pair	Door Weight/pair	Door Weight/pair	Door Weight/pair
250	11.20 - 15.19 kg	15.20 - 18.39 kg	18.40 - 21.59 kg	21.60 - 24.00 kg	-	-	-	-
300	9.33 - 12.66 kg	12.67 - 15.32 kg	15.33 - 17.99 kg	18.00 - 20.00 kg	-	-	-	-
350	8.00 - 10.85 kg	10.86 - 13.13 kg	13.14 - 15.42 kg	15.43 - 17.14 kg	8.00 - 11.42 kg	11.43 - 14.28 kg	14.29 - 17.13 kg	17.14 - 20.00 kg
400	7.00 - 9.49 kg	9.50 - 11.49 kg	11.50 - 13.49 kg	13.50 - 15.00 kg	7.00 - 9.99 kg	10.00 - 12.49 kg	12.50 - 14.99 kg	15.00 - 17.50 kg
450	6.22 - 8.43 kg	8.44 - 10.21 kg	10.22 - 11.99 kg	12.00 - 13.33 kg	6.22 - 8.88 kg	8.89 - 11.10 kg	11.11 - 13.32 kg	13.33 - 15.56 kg
500	5.60 - 7.59 kg	7.60 - 9.19 kg	9.20 - 10.79 kg	10.80 - 12.00 kg	5.60 - 7.99 kg	8.00 - 9.99 kg	10.00 - 11.99 kg	12.00 - 14.00 kg
550	5.09 - 6.90 kg	6.91 - 8.35 kg	8.36 - 9.81 kg	9.82 - 10.91 kg	5.09 - 7.26 kg	7.27 - 9.08 kg	9.09 - 10.90 kg	10.91 - 12.73 kg
600	4.67 - 6.32 kg	6.33 - 7.66 kg	7.67 - 8.99 kg	9.00 - 10.00 kg	4.67 - 6.66 kg	6.67 - 8.33 kg	8.33 - 9.99 kg	10.00 - 11.67 kg

CUSTOMIZE COLOUR OF LAPCON STAYS

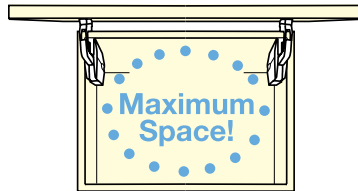
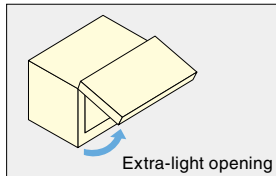
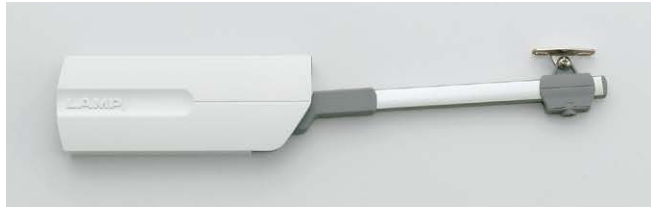
Possible to make custom colours for special requirements.





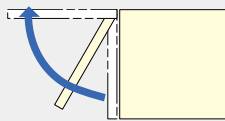
SLS-ELAN

EASY LIFT-UP STAY

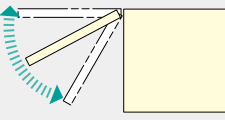


3 Functions in 1 Stay

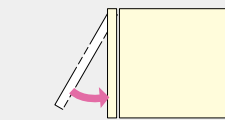
1. Lift-assist



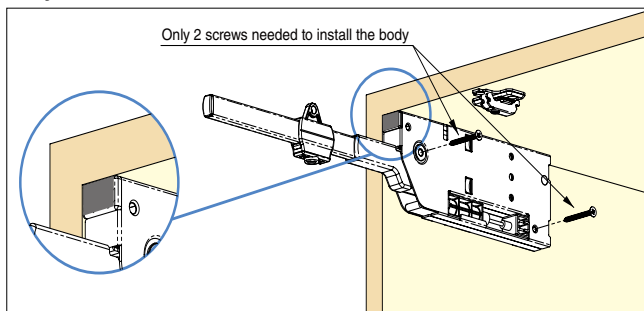
2. Free-stop



3. Soft-close



Easy Installation



Features

- For upward-opening flap doors.
- Equipped with:
 - Lift assist (to make flap doors feel lighter)
 - Free stop (holds position at any angle from 30° to fully open)
 - Soft-closing (slows down closing speed to prevent slamming between 0° and 30°)
- Recognized by LGA for 40,000 cycles
- Easy alignment: When doing an 19mm overlay install, simply press the body to the top of the interior of the cabinet and align the front plate flush with the cabinet.
- Easy installation: Can be installed on both sides from the front.
- Can be used singly or in pairs to accommodate a wide range of door sizes/weights
- Bracket (sold separately) available for aluminium frame flap doors.
- Please contact us directly for information about what types of hinges can be used with SLS-ELAN

Parts Included

- Mounting plate for wooden door
- Countersunk head tapping screw 3.5x35 for main body (2 pcs)
- Binding head tapping screw 3.5x15 for mounting plate (2 pcs)
- Truss head screw M4x5 for mounting plate (1 pc)

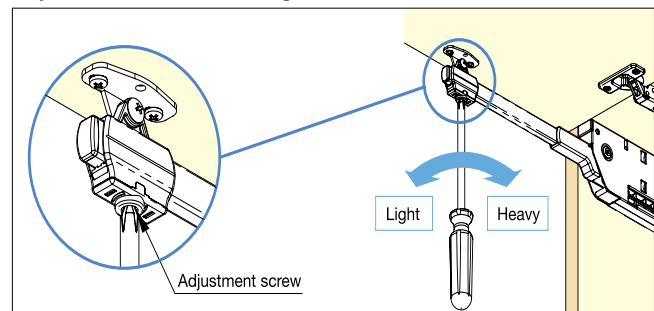
Remarks

Hinge is not included.

Sold Separately

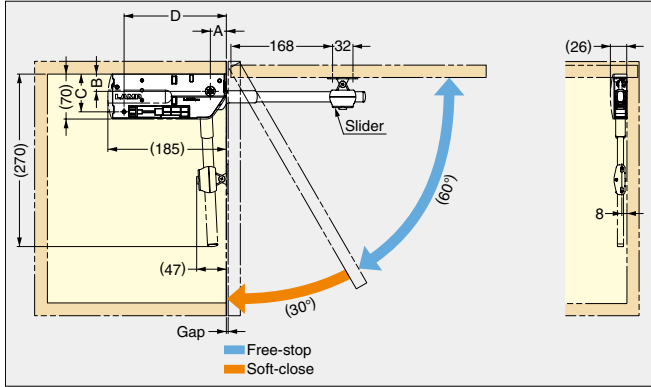
- Mounting plate SLS-ELAN-AZ for aluminium frame
- Possible to cover the original logo "LAMP" on the body with ELAN-LP (Item Code: 180-018-225) at surcharge.
- Slider (for maintenance)

Adjustment of Lift-assisting Force

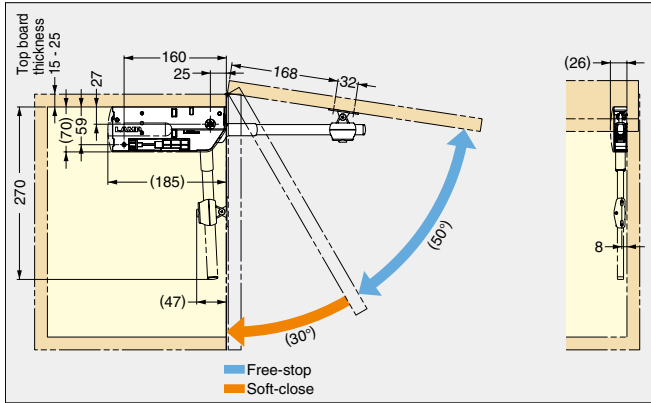


Installation (Right Side)

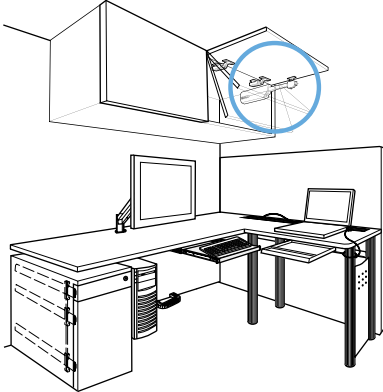
With concealed hinge



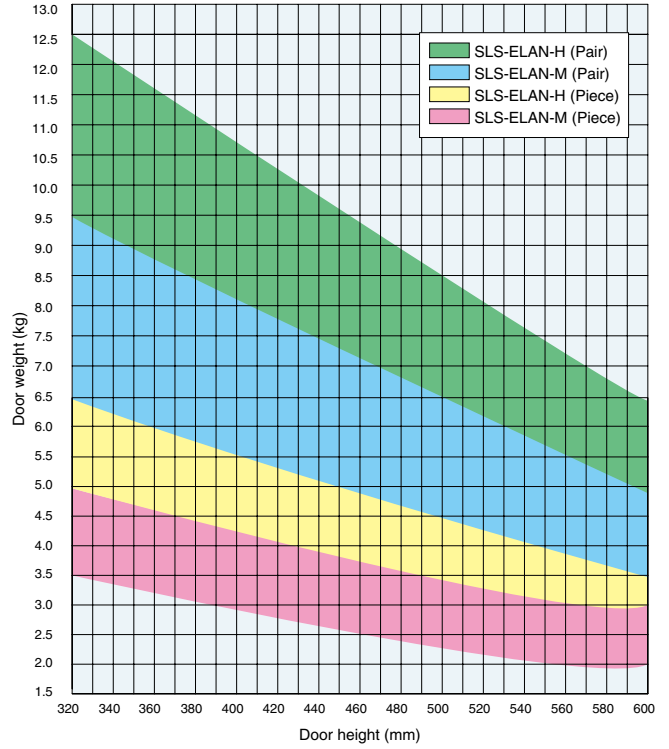
With single knuckle hinge



Application Example



Door Size Ranges



For heavier flap application, please contact your local dealer or sugatsune office.



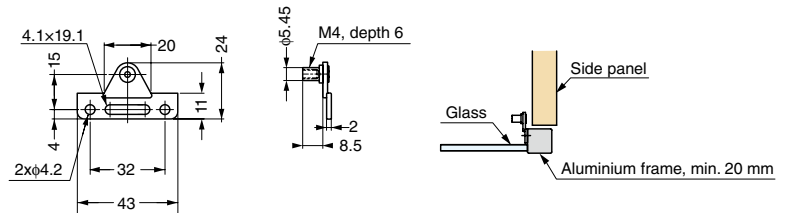
Slider for Maintenance

Item Code	Item Name	Weight	Carton
180-016-498	SLS-ELAN SLIDER	10 g	20 pcs

Item Code	Item Name	Type	Material	Finish/Colour	Model	Torque Moment/piece	Weight	Carton
180-015-491	SLS-ELAN-MR S	Right	Aluminium Alloy/ABS	Anodized/Light Grey	M	4.90 - 7.35 N·m (50 - 75 kgf·cm)	600 g	20 pcs
180-015-490	SLS-ELAN-ML S	Left	Aluminium Alloy/ABS	Anodized/Light Grey	M		600 g	20 pcs
180-015-493	SLS-ELAN-HR S	Right	Aluminium Alloy/ABS	Anodized/Light Grey	H	7.35 - 9.80 N·m (75 - 100 kgf·cm)	600 g	20 pcs
180-015-492	SLS-ELAN-HL S	Left	Aluminium Alloy/ABS	Anodized/Light Grey	H		600 g	20 pcs

MOUNTING PLATE FOR ALUMINIUM FRAME DOOR

SLS-ELAN-AZ



Mounting Plate for Aluminium Frame Door (Sold Separately)

Item Code	Item Name	Part Name	Weight	Box
180-017-647	SLS-ELAN-AZ	Body	11 g	320 pcs
180-018-555	SLS-ELAN-AZS	Screw Set	5 g	800 sets



LIFT-ASSIST STAY

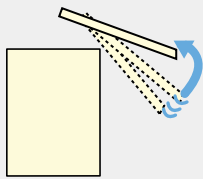


LID SUPPORTS

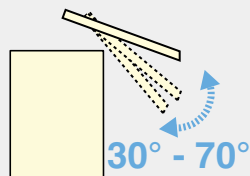
LIFT-ASSIST STAY

3 Functions in 1 Stay

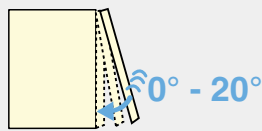
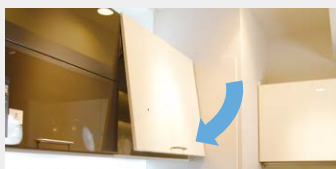
1. Lift-assist



2. Free-stop



3. Soft-close



Features

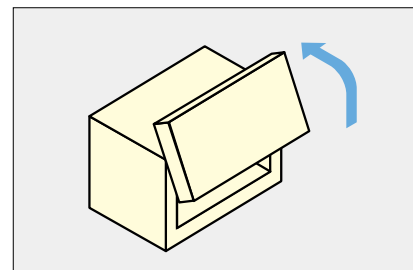
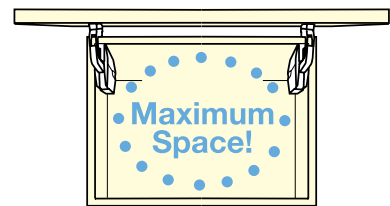
- For upward-opening flap doors.
- Equipped with:
 - Lift assist (to make flap doors feel lighter)
 - Free stop (holds position at any angle from 30° to 70°)
 - Soft-closing (slows down closing speed to prevent slamming between 0° and 20°)
- Successfully passed 30,000 open/close cycles in a private test.
- 2011 Good Design Award Winner
- Placed at the top of interior of the cabinet, significantly reducing dead space and not getting in the way when installing shelves.
- No hinges or connecting bars are needed.
- Easy alignment: Simply press the body to the top of the interior of the cabinet and align the front flush with the cabinet.
- Fast and easy installation: Body is attached to mounting plate (on flap) by simply snapping it in.
- If flap is within specification, does not require torque adjustment post-installation.

Remarks

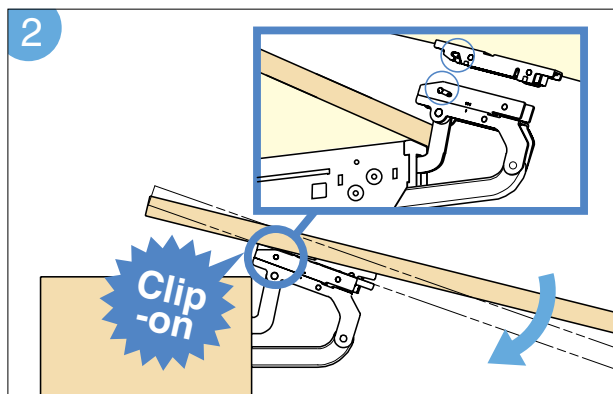
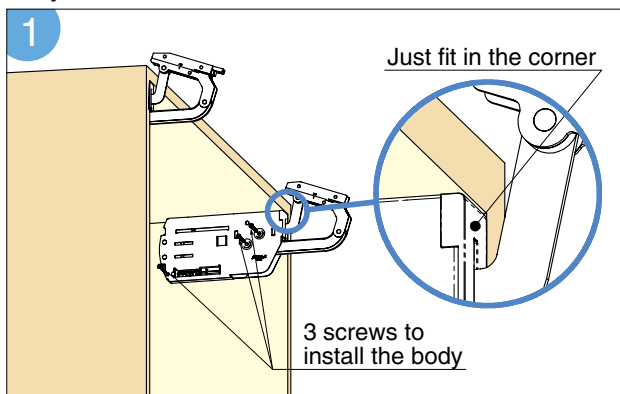
Used in pairs.

Parts Included

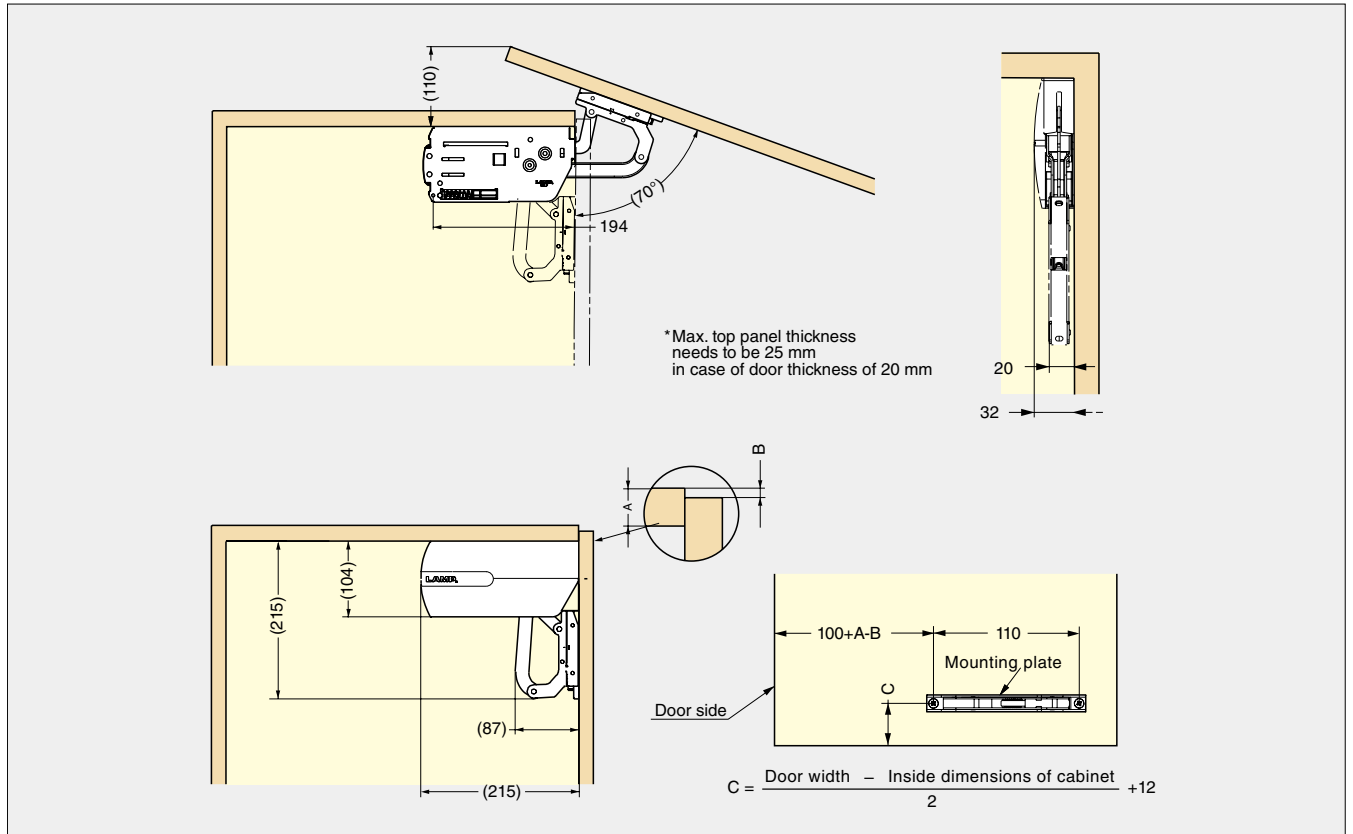
- Mounting plate (2 pcs)
- Countersunk head tapping screw 3.5x38 for main body (6 pcs)
- Binding head tapping screw 3.5x15 for mounting plate (4 pcs)



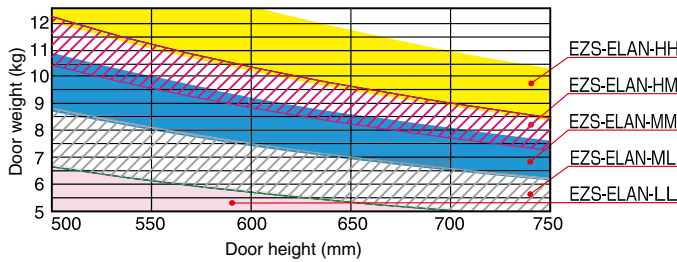
Easy Installation



Installation



Door Size Range



Lifting Power

Door height (mm) x (Door weight (kg) - 1)

Lifting Power	Model
1900-2860	EZS-ELAN-LL
2820-3900	EZS-ELAN-ML
3850-4950	EZS-ELAN-MM
4700-5600	EZS-ELAN-HM
5550-6930	EZS-ELAN-HH

Set Packing

Item Code	Item Name	Material	Finish/Colour	Weight	Carton
180-018-903	EZS-ELAN-LL S	Steel/ABS	Nickel/Light Grey	2494 g	5 sets
180-018-904	EZS-ELAN-ML S	Steel/ABS	Nickel/Light Grey	2569 g	5 sets
180-018-905	EZS-ELAN-MM S	Steel/ABS	Nickel/Light Grey	2646 g	5 sets
180-018-906	EZS-ELAN-HM S	Steel/ABS	Nickel/Light Grey	2646 g	5 sets
180-018-907	EZS-ELAN-HH S	Steel/ABS	Nickel/Light Grey	2646 g	5 sets

Bulk Packing

Item Code	Item Name	Material	Finish/Colour	Weight	Carton
180-018-923	EZS-ELAN-L	Steel/ABS	Nickel, Light Grey	2334 g	5 sets
180-018-924	EZS-ELAN-M	Steel/ABS	Nickel, Light Grey	2486 g	5 sets
180-018-925	EZS-ELAN-H	Steel/ABS	Nickel, Light Grey	2486 g	5 sets
180-018-983	EZS-ELAN-COVER	ABS	Light Grey	160 g	5 sets



SLU-ELAN

SWING LIFT-UP STAY



Features

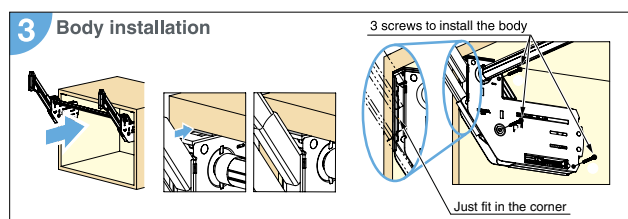
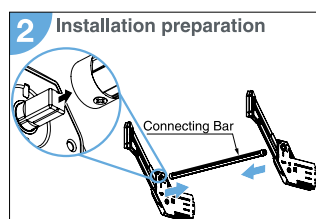
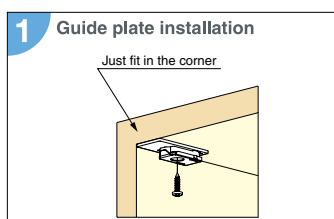
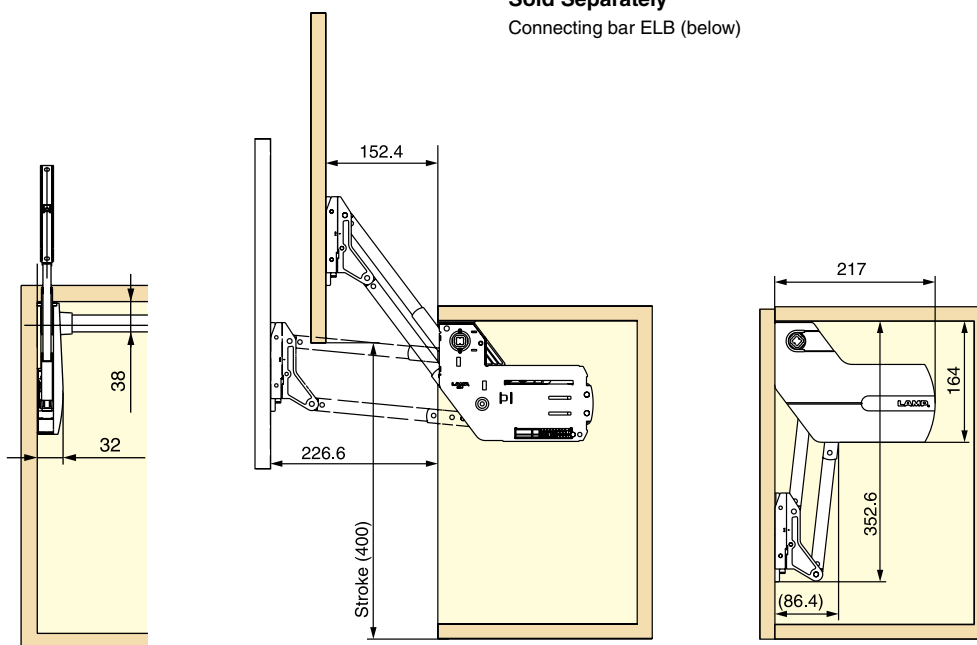
- For upward-opening flap doors.
- Equipped with:
 - Lift assist (to make flap doors feel lighter)
 - Free stop (holds position at any angle with a certain range)
 - Soft-closing (slows down closing speed to prevent slamming near closing radius)
- Successfully passed 30,000 open/close cycles in a private test.
- Placed at the top of interior of the cabinet, significantly reducing dead space and not getting in the way when installing shelves.
- Easy alignment
- Fast and easy installation: Body is attached to mounting plate (on flap) by simply snapping it in.

Parts Included

- Mounting plate for main body (2 pcs)
- Guide plate (2 pcs)
- Countersunk head tapping screw 3.5×38 for main body (6 pcs)
- Binding head tapping screw 3.5×15 for mounting plate (6 pcs)

Sold Separately

Connecting bar ELB (below)



Item Code	Item Name	Door Weight	Material	Finish/Colour	Weight	Carton
180-022-312	SLU-ELAN S4	5.0-6.5 kg	Aluminium Alloy, ABS	Anodized, Light Grey	3.0 kg	5 sets
180-022-313	SLU-ELAN L4	6.5-8.0 kg	Aluminium Alloy, ABS	Anodized, Light Grey	3.0 kg	5 sets
180-022-314	SLU-ELAN M4	8.0-9.5 kg	Aluminium Alloy, ABS	Anodized, Light Grey	3.1 kg	5 sets
180-022-315	SLU-ELAN H4	9.5-11.0 kg	Aluminium Alloy, ABS	Anodized, Light Grey	3.2 kg	5 sets

*Inside cabinet height is Min. 360 mm / *Door weight includes handle.

Connecting Bar (Sold Separately)

Item Code	Item Name	Cabinet Width	Cabinet Inside Width	Weight	Carton
180-022-319	ELB-480	600 mm	556-566 mm	184 g	5 pcs
180-022-320	ELB-780	900 mm	856-866 mm	298 g	5 pcs
180-022-321	ELB-1080	1200 mm	1156-1166 mm	411 g	5 pcs
180-022-322	ELB-1380	1500 mm	1456-1466 mm	526 g	5 pcs
180-026-323	ELB-1680	1800 mm	1756-1766 mm	650 g	5 pcs

*For other dimensions, the bar can be cut on site.

BI-FOLD LIFT ASSIST STAY



HBF-ELAN



Features

- For upward-opening flap doors.
- Equipped with:
 - Lift assist (to make flap doors feel lighter)
 - Free stop (holds position at any angle from 50° to fully open)
 - Soft-closing (slows down closing speed to prevent slamming between 0° and 40°)
- Successfully passed 30,000 open/close cycles in a private test.
- Easy to adjust opening angle (must be used together with concealed hinge with appropriate opening degree)
- Fast installation through vertical adjustment function on mounting plate (on flap)
- Installation is simple using the template (included)

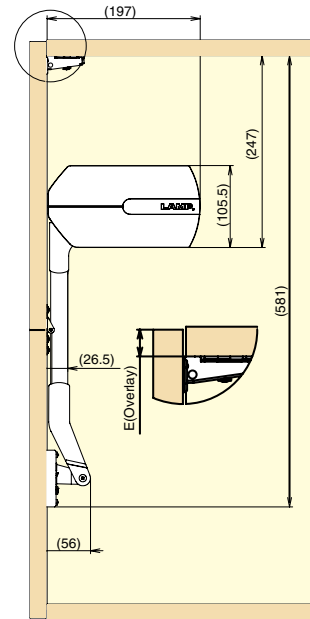
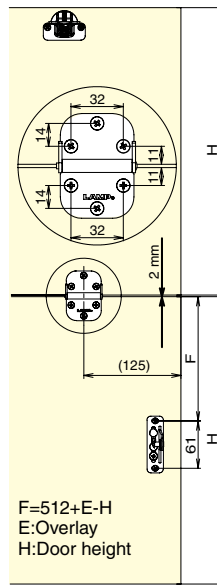
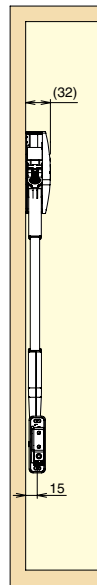
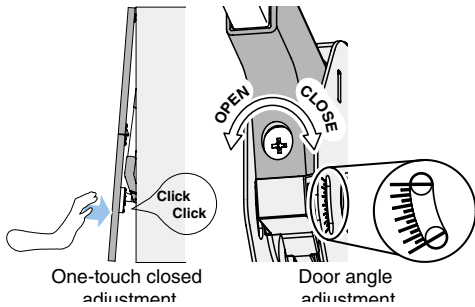
Parts Included

- Mounting plate (1 pair)
- Centre hinge (2 pcs)
- Paper template
- Countersunk head tapping screw 3.5x38 for main body (6 pcs)
- Binding head tapping screw 3.5x15 for centre hinge (12 pcs)
- Binding head tapping screw 3.5x27 for mounting plate (4 pcs)
- Truss head screw M4x5 for mounting plate (2 pcs)

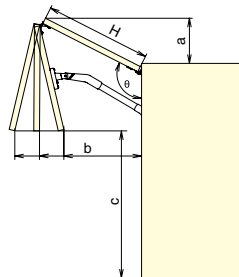
Sold Separately

- Concealed hinge 120-34/19, 120-34/14, 120-34/9 for 120° opening (P.378 - 381)
- Mounting plate 100 series for 120° opening (P.391 - 392)

Multiple Adjustments



Opening Dimensions



Opening Angle	H: Door Height								
	320			350			370		
	a	b	c	a	b	c	a	b	c
105°	58	364	341	65	348	373	69	314	399
110°	85	364	369	93	344	402	99	303	431
120°	134	359	424	148	330	459	157	270	492

Item Code	Item Name	Door Weight	Material	Finish/Colour	Weight	Carton
180-024-608	HBF-ELAN-LL	2.5-3.3 kg	Aluminium Alloy, ABS	Anodized/Light Grey	2.6 kg	5 sets
180-024-609	HBF-ELAN-ML	3.3-4.1 kg	Aluminium Alloy, ABS	Anodized/Light Grey	2.6 kg	5 sets
180-024-610	HBF-ELAN-MM	4.1-4.9 kg	Aluminium Alloy, ABS	Anodized/Light Grey	2.6 kg	5 sets
180-024-611	HBF-ELAN-HM	4.9-5.7 kg	Aluminium Alloy, ABS	Anodized/Light Grey	2.6 kg	5 sets
180-024-612	HBF-ELAN-HH	5.7-6.5 kg	Aluminium Alloy, ABS	Anodized/Light Grey	2.6 kg	5 sets

*2 doors are necessary for 1 cabinet.

HORIZONTAL BI-FOLDING UNIT



HBFN



Features

- Unique bi-fold door mechanism
- For upward-opening flap doors.
- Holds position in fully opened and closed positions.
- Soft-close function: slows down closing speed to prevent slamming
- Arm length adjustable for various door sizes.
- No tracks or guides required.
- Handle can be installed at the bottom of the flap.

Remarks

1 set of arm mounting plate necessary for 1 set of HBFN.

Sold Separately

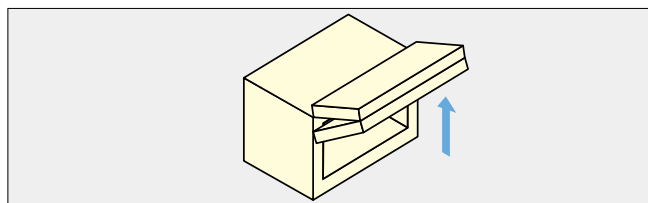
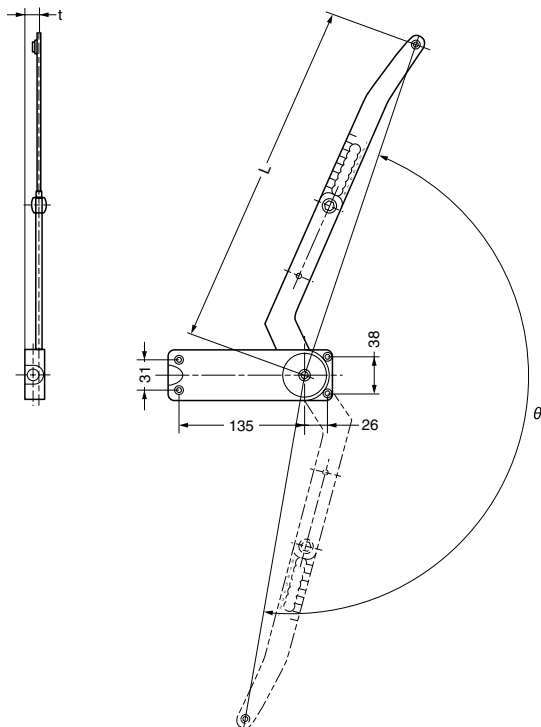
Mounting plate HBFN-SZ (P.501)

Parts Included

- Offset hinge HBFN-CH (2 pcs)
- Binding head tapping screw 3.5x15

LID SUPPORTS

HORIZONTAL BI-FOLDING UNIT



Offset Hinge (2 pcs/set)

Additional hinges necessary for doors of width over 600 mm.

Item Code	Item Name	Material	Finish	Weight	Box
180-099-941	HBFN-CH	Steel	Nickel	65 g	200 pcs

Material	Finish/Colour
ABS/Steel	Nickel/Light Grey

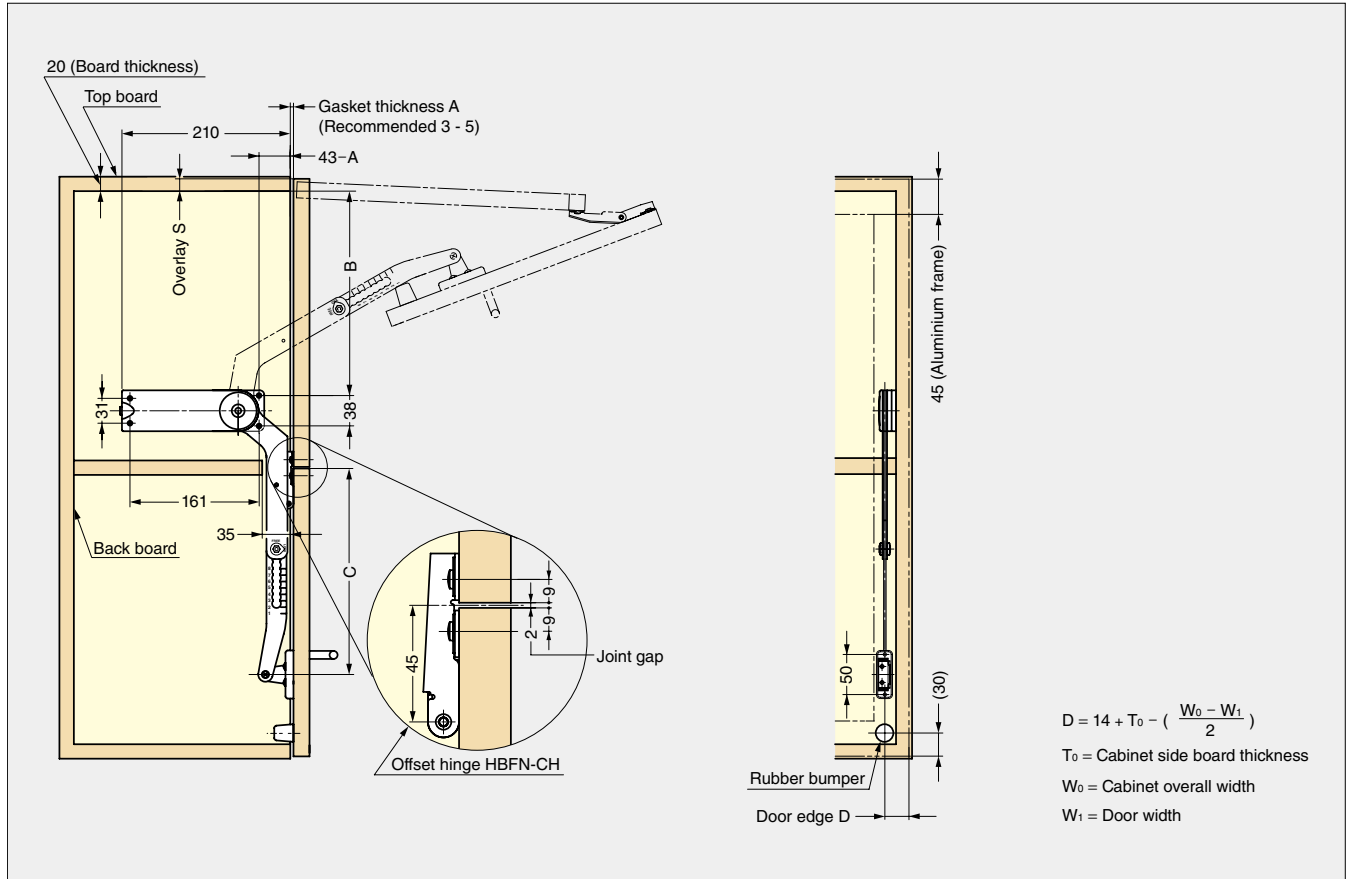
Body (1 set)

*These figures below are only for 1 door. 2 doors are necessary for 1 cabinet.

Item Code	Item Name	Door Width	Door Height	Door Thickness	Door Weight	θ	L	t	Weight	Carton
180-109-615	HBFN-2M	450 - 900	320 - 370	17 - 20	2.5 - 3.5 kg	171°	299 - 363	14	1.5 kg	10 sets
180-109-616	HBFN-3M	450 - 900	320 - 370	17 - 20	3.5 - 4.5 kg	171°	299 - 363	14	1.5 kg	10 sets
180-109-617	HBFN-4M	450 - 900	320 - 370	17 - 20	4.5 - 5.5 kg	171°	299 - 363	14	1.6 kg	10 sets



Installation



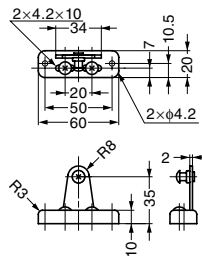
LID SUPPORTS

HORIZONTAL BI-FOLDING UNIT

Installation Dimensions

Door Height	Upper Door Opening Angle 90°			Upper Door Opening Angle 105°		
	Arm Adjustment Position	B	C	Arm Adjustment Position	B	C
320	1	247-S	241	4	226-S	244
330	2	252-S	244	5	234-S	250
340	3	258-S	248	6	243-S	257
350	4	263-S	251	7	251-S	263
360	5	269-S	255	8	259-S	269
370	6	274-S	258	9	267-S	275

ARM MOUNTING PLATE FOR HBFN



Features

Sold in pairs.

Item Code	Item Name	Application	Material	Finish	Weight	Box
180-109-618	HBFN-SZ	For Wood Door/Aluminium Frame more than 45 mm	Steel/Rubber	Nickel	44 g	100 pairs

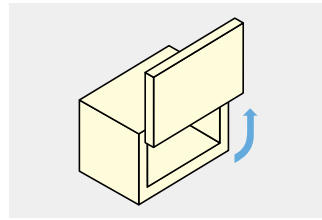
SWING LIFT-UP STAY



SLUN-N

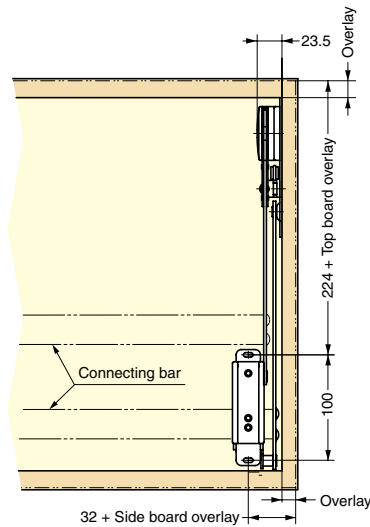
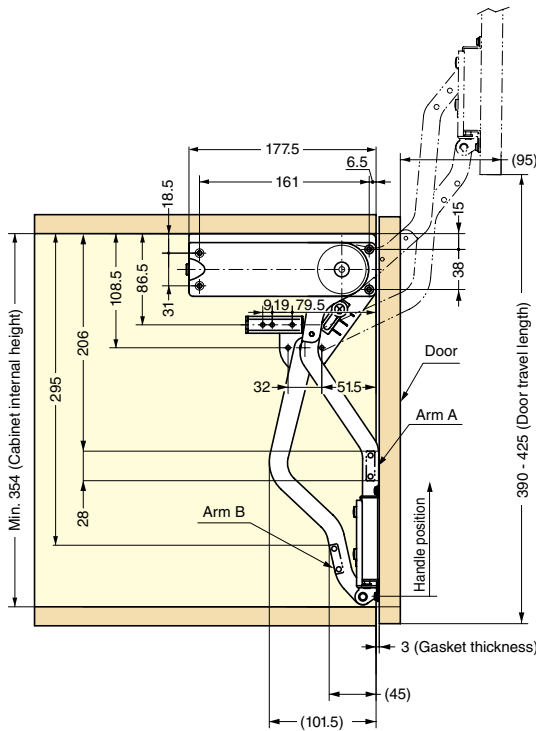
LID SUPPORTS

SWING LIFT-UP STAY



A combination of SLUN-N and SLD

Installation



Features

- For upward-opening flap doors.
- After pulling the flap forward 50 - 70mm, a spring will help gently lift the flap.
- Soft close feature slows down closing speed and prevents slamming.
- Placed at the top of interior of the cabinet, significantly reducing dead space and not getting in the way when installing shelves.
- Successfully passed 30,000 open/close cycles in a private test.

Remarks

- 1 connecting bar SLUB is necessary for 1 set of SLUN-N.
- Glass frame width should be more than 75 mm.

Parts Included

- Binding head tapping screw 3.5 × 15 for body
- Countersunk head tapping screw 3.5 × 20 for damper
- Truss head tapping screw 4.5 × 12 for connecting bar

Sold Separately

Connecting bar SLUB

- 1pc/set
- 2pcs/set for horizontal reinforcement.

If the side board thickness is over 15 mm, the connecting bar should be cut according to the below formula.

Arm A: Connecting bar length = Overall cabinet width - (Side board thickness × 2) - 35

Arm B: Connecting bar length = Overall cabinet width - (Side board thickness × 2) - 19

Body (1 set)

Item Code	Item Name	Material	Finish/Colour	Door Width	Door Height	Door Weight	Weight	Carton
180-020-832	SLUN-3N	ABS/Steel	Chrome/Grey	600 - 900	390 - 450	2.8 - 3.8 kg	2.0 kg	5 sets
180-020-833	SLUN-4N	ABS/Steel	Chrome/Grey	600 - 900	390 - 450	3.8 - 4.8 kg	2.0 kg	5 sets
180-020-834	SLUN-5N	ABS/Steel	Chrome/Grey	600 - 900	390 - 450	4.8 - 5.8 kg	2.1 kg	5 sets

Connecting Bar (Sold Separately)

Item Code	Item Name	Applicable Door	Mounting Position	Cabinet Width*	Length	Weight	Carton
180-120-287	SLUB-535	Wooden Door	Arm A	600	535	191 g	10 pcs
180-104-088	SLUB-551	Glass Frame Door	Arm B	600	551	196 g	10 pcs
180-120-288	SLUB-835	Wooden Door	Arm A	900	835	308 g	10 pcs
180-100-131	SLUB-851	Glass Frame Door	Arm B	900	851	312 g	10 pcs

*The side board thickness is 15 mm.

SWING DOWN STAY



SLD



Features

- For downward-opening flap doors.
- Unique swing down mechanism.
- Spring powered to make flap feel light and easy to close.
- Built in damper prevents slamming during closing.
- Placed at the bottom of interior of the cabinet, significantly reducing dead space and not getting in the way when installing shelves.
- Successfully passed 30,000 open/close cycles in a private test.

Remarks

1 connecting bar SLUB is necessary for 1 set of SLD.

Parts Included

- Binding head tapping screw 3.5x15 for body
- Countersunk head tapping screw 3.5x20 for damper
- Truss head tapping screw 4.5x12 for connecting bar

Sold Separately

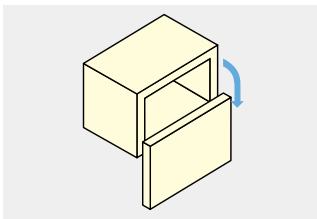
Connecting bar SLUB

- 1pc/set
- 2pcs/set for horizontal reinforcement.

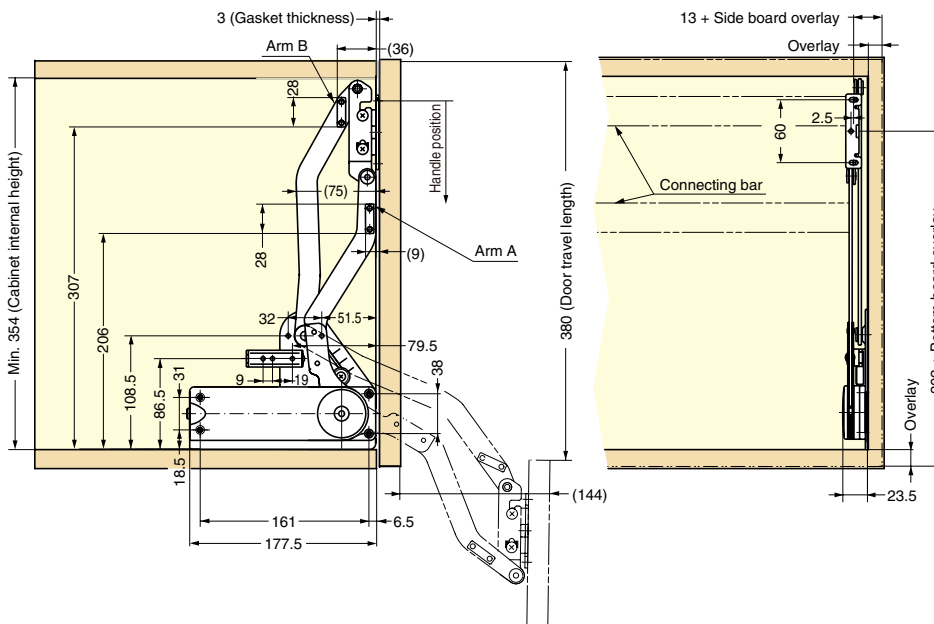
If the side board thickness is over 15 mm, the connecting bar should be cut according to the below formula.

Arm A: Connecting bar length = Overall cabinet width - (Side board thickness x2) - 35

Arm B: Connecting bar length = Overall cabinet width - (Side board thickness x2) - 19



Installation



Body (1 set)

Item Code	Item Name	Material	Finish/Colour	Door Width	Door Height	Door Weight	Weight	Carton
180-020-848	SLD-3	ABS/Steel	Chrome/Grey	600 - 900	360 - 400	3 - 4 kg	1.9 kg	5 sets
180-020-849	SLD-4	ABS/Steel	Chrome/Grey	600 - 900	360 - 400	4 - 5 kg	1.9 kg	5 sets
180-020-850	SLD-5	ABS/Steel	Chrome/Grey	600 - 900	360 - 400	5 - 6 kg	2.0 kg	5 sets

Connecting Bar (Sold Separately)

Item Code	Item Name	Applicable Door	Mounting Position	Cabinet Width*	Length	Weight	Carton
180-120-287	SLUB-535	Wooden Door	Arm A	600	535	191 g	10 pcs
180-104-088	SLUB-551	Glass Frame Door	Arm B	600	551	196 g	10 pcs
180-120-288	SLUB-835	Wooden Door	Arm A	900	835	308 g	10 pcs
180-100-131	SLUB-851	Glass Frame Door	Arm B	900	851	312 g	10 pcs

*The side board thickness is 15 mm.



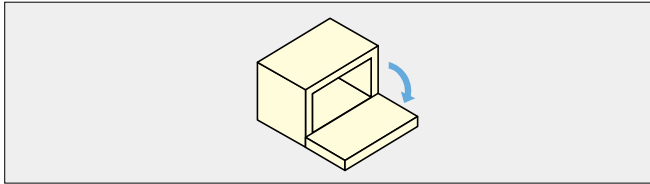
HEAVY DUTY SOFT-DOWN STAY



HDS-10

LID SUPPORTS

HEAVY DUTY SOFT-DOWN STAY



Features

- For downward-opening flap doors.
- Built in damper slows down near 90° opening radius to prevent slamming.
- Built in catch holds flap in closed position.
- Can be used with concealed, piano, or butt hinges.
- Use in pairs.

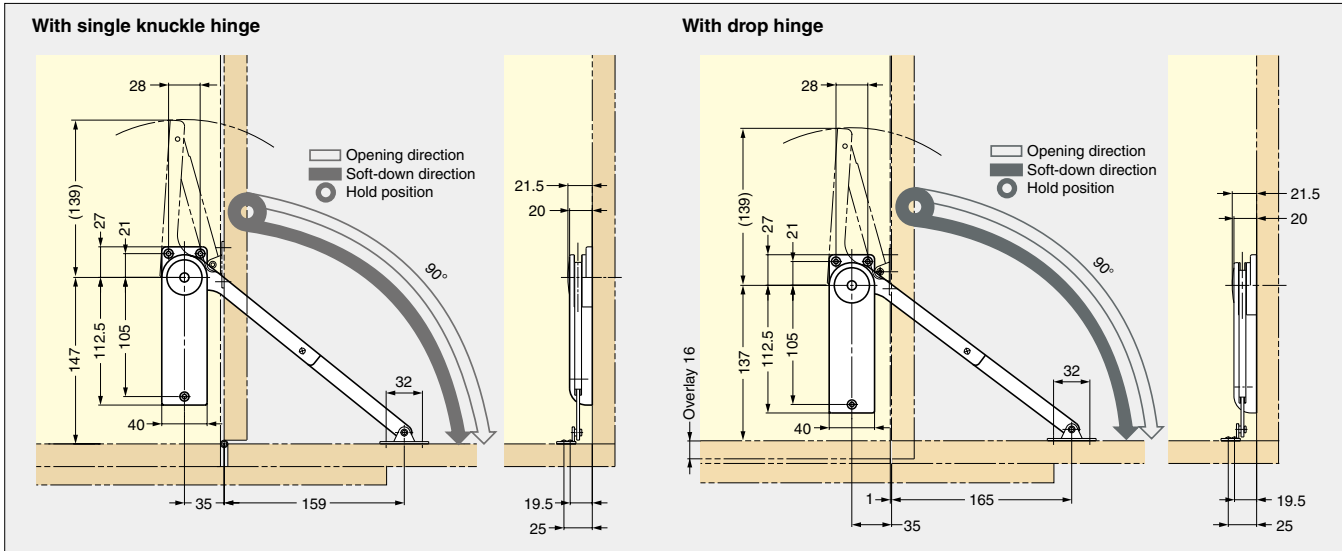
Applicable Range

Torque	Model	Qty
13.7 - 19.5 N·m	K	1 pair
19.6 - 24.4 N·m	M	1 pair
24.5 - 29.4 N·m	H	1 pair

Parts Included

- Mounting plate
- Binding head tapping screw 3.5×15

Installation (Opening Angle 90°)



Item Code	Item Name	Type	Material	Finish/Colour	Model	Torque Moment/pair	Weight	Carton
180-104-067	HDS-10KL-BL	Left	ABS/Steel	Nickel/Black	K	13.7 - 19.5 N·m (140 - 199 kgf·cm)	292 g	40 pcs
180-104-066	HDS-10KR-BL	Right	ABS/Steel	Nickel/Black	K		292 g	40 pcs
180-104-073	HDS-10KL-WT	Left	ABS/Steel	Nickel/White	K		292 g	40 pcs
180-104-072	HDS-10KR-WT	Right	ABS/Steel	Nickel/White	K		292 g	40 pcs
180-104-069	HDS-10ML-BL	Left	ABS/Steel	Nickel/Black	M	19.6 - 24.4 N·m (200 - 249 kgf·cm)	302 g	40 pcs
180-104-068	HDS-10MR-BL	Right	ABS/Steel	Nickel/Black	M		302 g	40 pcs
180-104-075	HDS-10ML-WT	Left	ABS/Steel	Nickel/White	M		302 g	40 pcs
180-104-074	HDS-10MR-WT	Right	ABS/Steel	Nickel/White	M	24.5 - 29.4 N·m (250 - 300 kgf·cm)	302 g	40 pcs
180-104-071	HDS-10HL-BL	Left	ABS/Steel	Nickel/Black	H		308 g	40 pcs
180-104-070	HDS-10HR-BL	Right	ABS/Steel	Nickel/Black	H		308 g	40 pcs
180-104-077	HDS-10HL-WT	Left	ABS/Steel	Nickel/White	H		308 g	40 pcs
180-104-076	HDS-10HR-WT	Right	ABS/Steel	Nickel/White	H		308 g	40 pcs



HEAVY DUTY SOFT-DOWN STAY



HDS-20



Features

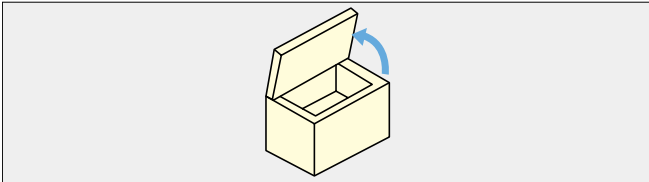
- For top-opening flap doors.
- Built in damper to prevent slamming during closing.
- Built in catch holds flap in fully open position.
- Can also be used with concealed, piano, or butt hinges.
- Use in pairs.

Applicable Range

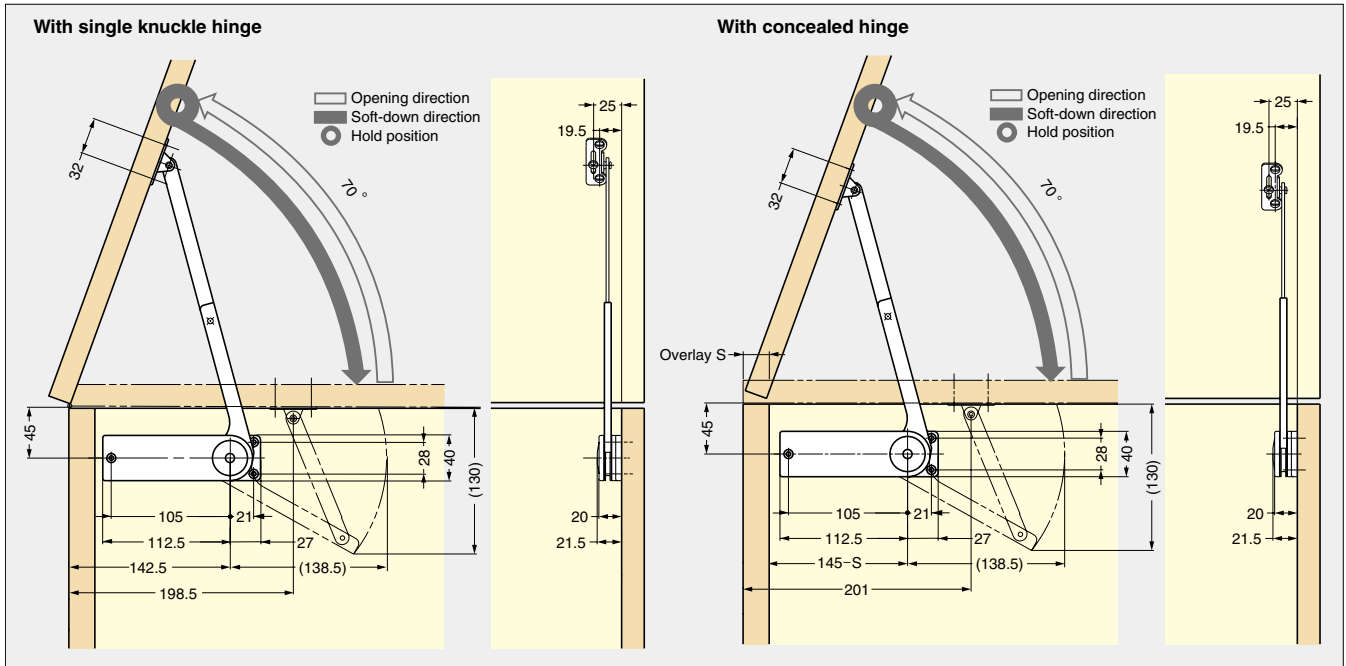
Torque	Model	Qty
13.7 - 19.5 N-m	K	1 pair
19.6 - 24.4 N-m	M	1 pair
24.5 - 29.4 N-m	H	1 pair

Parts Included

- Mounting plate
- Binding head tapping screw 3.5x15



Installation (Opening Angle 70°)



Item Code	Item Name	Type	Material	Finish/Colour	Model	Torque Moment/pair	Weight	Carton
180-109-237	HDS-20KL-BL	Left	ABS/Steel	Nickel/Black	K	13.7 - 19.5 N-m (140 - 199 kgf-cm)	284 g	40 pcs
180-109-236	HDS-20KR-BL	Right	ABS/Steel	Nickel/Black	K		284 g	40 pcs
180-109-243	HDS-20KL-WT	Left	ABS/Steel	Nickel/White	K		284 g	40 pcs
180-109-242	HDS-20KR-WT	Right	ABS/Steel	Nickel/White	K		284 g	40 pcs
180-109-239	HDS-20ML-BL	Left	ABS/Steel	Nickel/Black	M	19.6 - 24.4 N-m (200 - 249 kgf-cm)	288 g	40 pcs
180-109-238	HDS-20MR-BL	Right	ABS/Steel	Nickel/Black	M		288 g	40 pcs
180-109-245	HDS-20ML-WT	Left	ABS/Steel	Nickel/White	M		288 g	40 pcs
180-109-244	HDS-20MR-WT	Right	ABS/Steel	Nickel/White	M	24.5 - 29.4 N-m (250 - 300 kgf-cm)	288 g	40 pcs
180-109-241	HDS-20HL-BL	Left	ABS/Steel	Nickel/Black	H		299 g	40 pcs
180-109-240	HDS-20HR-BL	Right	ABS/Steel	Nickel/Black	H		299 g	40 pcs
180-109-247	HDS-20HL-WT	Left	ABS/Steel	Nickel/White	H		299 g	40 pcs
180-109-246	HDS-20HR-WT	Right	ABS/Steel	Nickel/White	H	299 g	40 pcs	

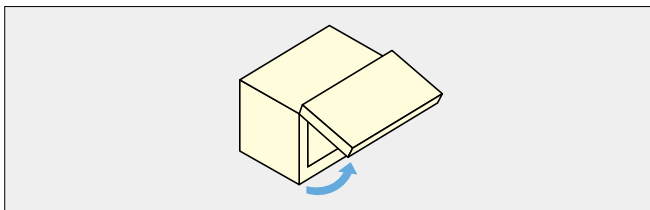
HEAVY DUTY SOFT-DOWN STAY



HDS-30

LID SUPPORTS

HEAVY DUTY SOFT-DOWN STAY



Features

- For upward-opening flap doors.
- Built in damper to prevent slamming during closing.
- Built in catch holds flap closed.
- Can also be used with concealed, piano, or butt hinges.
- Use in pairs.

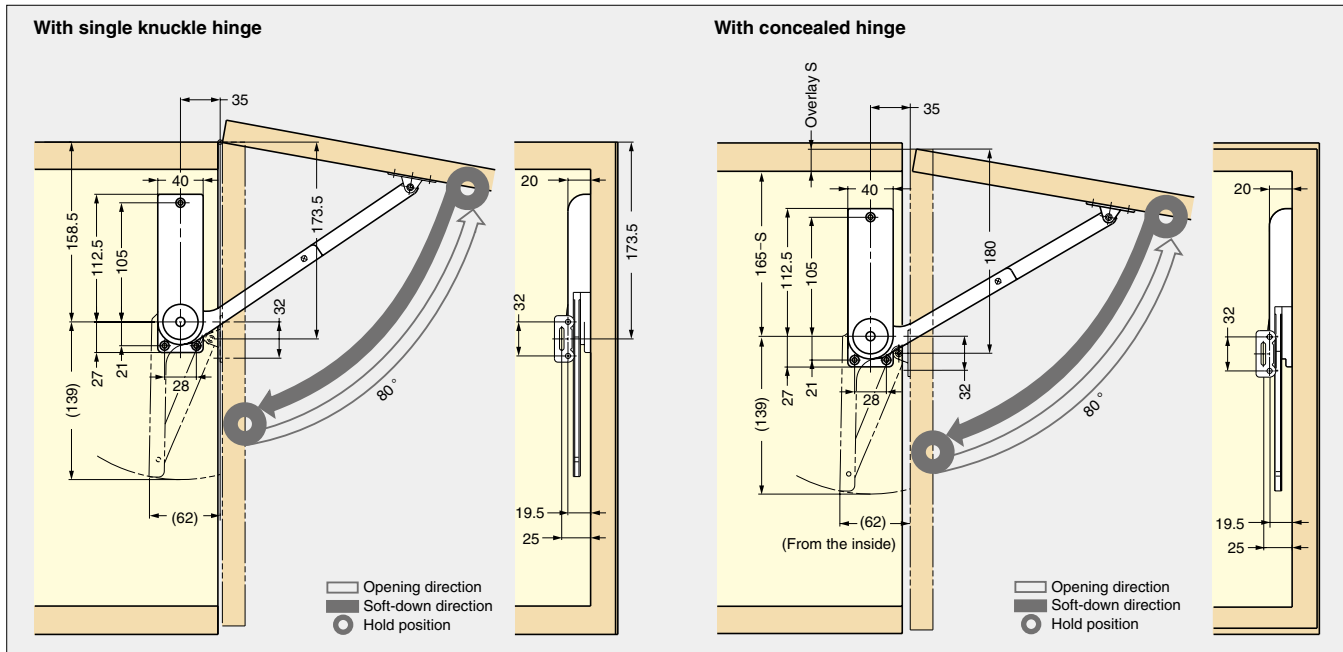
Applicable Range

Torque	Model	Qty
13.7 - 19.5 N·m	K	1 pair
19.6 - 24.4 N·m	M	1 pair
24.5 - 29.4 N·m	H	1 pair

Parts Included

- Mounting plate
- Binding head tapping screw 3.5x15

Installation (Opening Angle 80°)



Item Code	Item Name	Type	Material	Finish/Colour	Model	Torque Moment/pair	Weight	Carton
180-104-079	HDS-30KL-BL	Left	ABS/Steel	Nickel/Black	K	13.7 - 19.5 N·m (140 - 199 kgf·cm)	276 g	40 pcs
180-104-078	HDS-30KR-BL	Right	ABS/Steel	Nickel/Black	K		276 g	40 pcs
180-109-271	HDS-30KL-WT	Left	ABS/Steel	Nickel/White	K		276 g	40 pcs
180-109-270	HDS-30KR-WT	Right	ABS/Steel	Nickel/White	K		276 g	40 pcs
180-104-081	HDS-30ML-BL	Left	ABS/Steel	Nickel/Black	M	19.6 - 24.4 N·m (200 - 249 kgf·cm)	294 g	40 pcs
180-104-080	HDS-30MR-BL	Right	ABS/Steel	Nickel/Black	M		294 g	40 pcs
180-109-273	HDS-30ML-WT	Left	ABS/Steel	Nickel/White	M		294 g	40 pcs
180-109-272	HDS-30MR-WT	Right	ABS/Steel	Nickel/White	M	294 g	40 pcs	
180-104-083	HDS-30HL-BL	Left	ABS/Steel	Nickel/Black	H	24.5 - 29.4 N·m (250 - 300 kgf·cm)	300 g	40 pcs
180-104-082	HDS-30HR-BL	Right	ABS/Steel	Nickel/Black	H		300 g	40 pcs
180-109-275	HDS-30HL-WT	Left	ABS/Steel	Nickel/White	H		300 g	40 pcs
180-109-274	HDS-30HR-WT	Right	ABS/Steel	Nickel/White	H		300 g	40 pcs



HEAVY DUTY SOFT-DOWN STAY



HDSN-30



Features

- For upward-opening flap doors.
- Built in damper causes flap doors to close gently and prevents slamming.
- Built in catch to hold flap when fully opened and when fully closed.
- Efficiently uses spaces: enough space left to install shelves.
- Snap-in installation to mounting plate.
- Mounting plate option for aluminium frame installation (sold separately).
- Can also be used with single axis hinges like concealed, piano or butt hinges.
- Use in pairs.

Applicable Range

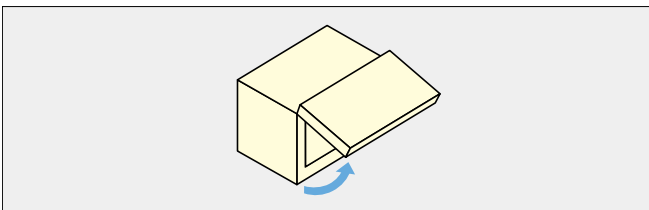
Torque		Model	Qty
Opening Angle 90°	Opening Angle 80°		
13.7 - 17.5 N·m	13.7 - 19.5 N·m	K	1 pair
17.6 - 21.5 N·m	19.6 - 24.4 N·m	M	1 pair
21.6 - 25.4 N·m	24.5 - 29.3 N·m	H	1 pair
25.5 - 29.4 N·m	29.4 - 34.3 N·m	S	1 pair

Parts Included

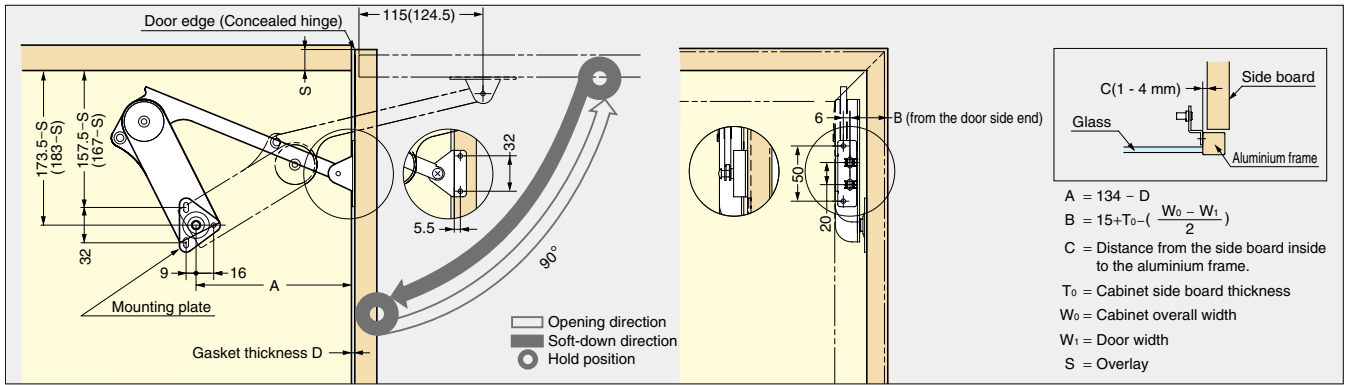
- Mounting plate
- Binding head tapping screw 3.5×15

Sold Separately

- Arm mounting plate HDSN-SZ (below)
- Arm mounting plate HDSN-AZ for 20 mm aluminium frame (below)



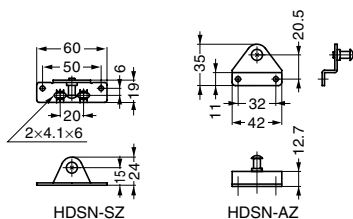
Installation with HDSN-SZ (Opening Angle 90°)



Item Code	Item Name	Type	Material	Finish/Colour	Model	Torque Moment/pair		Weight	Carton
						Opening Angle 90°	Opening Angle 80°		
180-109-601	HDSN-30KL	Left	ABS/Steel	Nickel/Light Grey	K	13.7 - 17.5 N·m	13.7 - 19.5 N·m	366 g	40 pcs
180-109-602	HDSN-30KR	Right	ABS/Steel	Nickel/Light Grey	K	(140 - 179 kgf·cm)	(140 - 199 kgf·cm)	366 g	40 pcs
180-109-603	HDSN-30ML	Left	ABS/Steel	Nickel/Light Grey	M	17.6 - 21.5 N·m	19.6 - 24.4 N·m	415 g	40 pcs
180-109-604	HDSN-30MR	Right	ABS/Steel	Nickel/Light Grey	M	(180 - 219 kgf·cm)	(200 - 249 kgf·cm)	415 g	40 pcs
180-109-605	HDSN-30HL	Left	ABS/Steel	Nickel/Light Grey	H	21.6 - 25.4 N·m	24.5 - 29.3 N·m	415 g	40 pcs
180-109-606	HDSN-30HR	Right	ABS/Steel	Nickel/Light Grey	H	(220 - 259 kgf·cm)	(250 - 299 kgf·cm)	415 g	40 pcs
180-109-607	HDSN-30SL	Left	ABS/Steel	Nickel/Light Grey	S	25.5 - 29.4 N·m	29.4 - 34.3 N·m	415 g	40 pcs
180-109-608	HDSN-30SR	Right	ABS/Steel	Nickel/Light Grey	S	(260 - 300 kgf·cm)	(300 - 350 kgf·cm)	415 g	40 pcs

ARM MOUNTING PLATE FOR HDSN

HDSN-SZ, HDSN-AZ



Item Code	Item Name	Application	Material	Finish	Weight	Box
180-109-609	HDSN-SZ	For Wood Door/Aluminium Frame more than 45 mm	Steel	Nickel	24 g	120 pcs
180-109-610	HDSN-AZ	For 20 mm width Aluminium Frame	Steel	Nickel	25 g	120 pcs

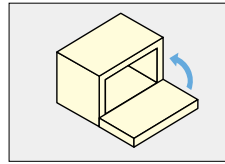


HDS-10S

SELF-CLOSE STAY

LID SUPPORTS

SELF-CLOSE STAY



Features

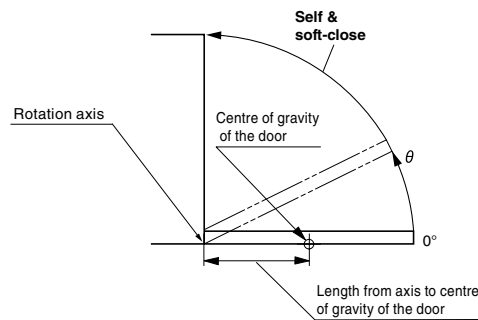
- For downward opening flap doors.
- Self closes if given a small push in opened position.
- Equipped with damper to close gently and prevent slamming.
- Built in catch to hold flap when fully opened and when fully closed. Flap will not lift up during installation.
- Use in pairs.

Parts Included

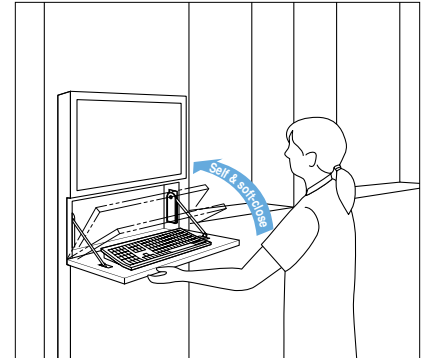
- Mounting plate
- Binding head tapping screw 3.5×15

Model	Self & Soft-close Starting Angle θ
K	5° - 35°
M	5° - 20°
H	5° - 20°
S	5° - 15°

Self & Soft-close Starting Angle

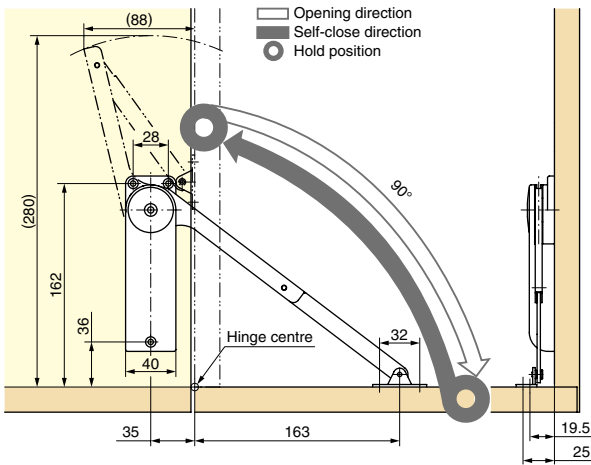


Application Example

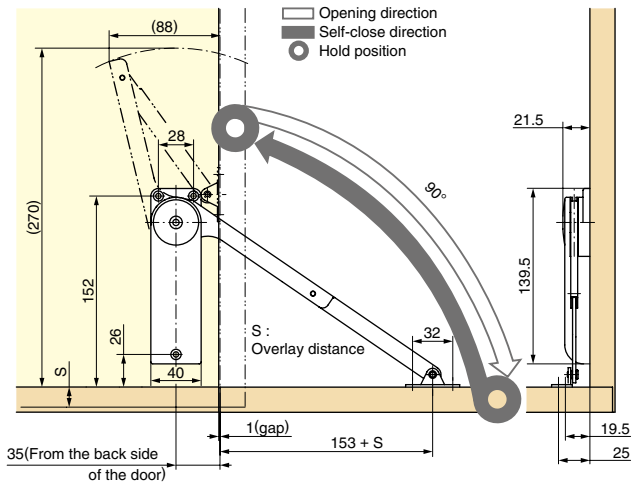


Installation

With Piano-Butt Hinge



With Drop Hinge (SDH-001)



Item Code	Item Name	Type	Material	Finish/Colour	Model	Torque Moment/pair	Weight	Carton
180-025-872	HDS-10S-KL-BL	Left	ABS/Steel	Nickel/Black	K	5.9 - 9.3 N·m (60 - 95 kgf·cm)	292 g	40 pcs
180-026-723	HDS-10S-KL-WT	Left	ABS/Steel	Nickel/White	K		292 g	40 pcs
180-025-873	HDS-10S-KR-BL	Right	ABS/Steel	Nickel/Black	K		292 g	40 pcs
180-026-724	HDS-10S-KR-WT	Right	ABS/Steel	Nickel/White	K		292 g	40 pcs
180-025-874	HDS-10S-ML-BL	Left	ABS/Steel	Nickel/Black	M	9.3 - 12.7 N·m (95 - 130 kgf·cm)	301 g	40 pcs
180-026-725	HDS-10S-ML-WT	Left	ABS/Steel	Nickel/White	M		301 g	40 pcs
180-025-875	HDS-10S-MR-BL	Right	ABS/Steel	Nickel/Black	M		301 g	40 pcs
180-026-726	HDS-10S-MR-WT	Right	ABS/Steel	Nickel/White	M		301 g	40 pcs
180-025-876	HDS-10S-HL-BL	Left	ABS/Steel	Nickel/Black	H	10.8 - 15.7 N·m (110 - 160 kgf·cm)	309 g	40 pcs
180-026-727	HDS-10S-HL-WT	Left	ABS/Steel	Nickel/White	H		309 g	40 pcs
180-025-877	HDS-10S-HR-BL	Right	ABS/Steel	Nickel/Black	H		309 g	40 pcs
180-026-728	HDS-10S-HR-WT	Right	ABS/Steel	Nickel/White	H		309 g	40 pcs
180-025-902	HDS-10S-SL-BL	Left	ABS/Steel	Nickel/Black	S	13.7 - 17.6 N·m (140 - 180 kgf·cm)	312 g	40 pcs
180-026-729	HDS-10S-SL-WT	Left	ABS/Steel	Nickel/White	S		312 g	40 pcs
180-025-903	HDS-10S-SR-BL	Right	ABS/Steel	Nickel/Black	S		312 g	40 pcs
180-026-730	HDS-10S-SR-WT	Right	ABS/Steel	Nickel/White	S		312 g	40 pcs

SELF-OPENING STAY



HDS-20S



Features

- Opens automatically if flap is pulled open slightly.
- Built-in damper causes flap to open gently, preventing slamming.
- Built in catch to hold flap when fully closed.
- Can also be used with single axis hinges like concealed, piano or butt hinges.

Applicable Range

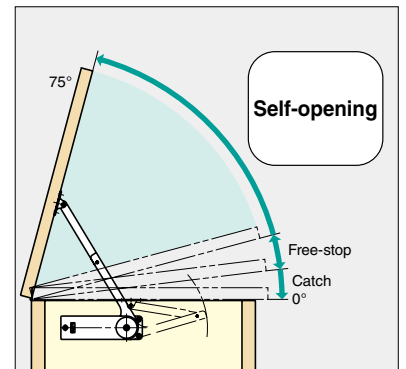
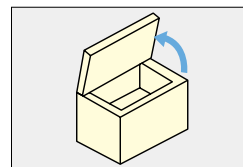
Torque Moment	Model	Qty
6.9 - 10.8 N·m	H	1 pair
10.9 - 14.7 N·m	S	1 pair

Remarks

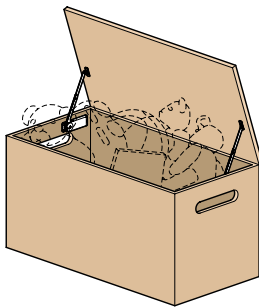
Used in pairs.

Parts Included

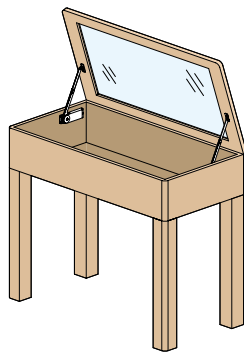
- Mounting plate
- Binding tapping screw 3.5x15



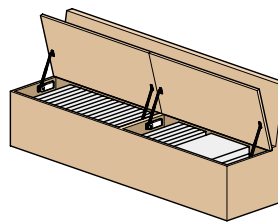
Application Example



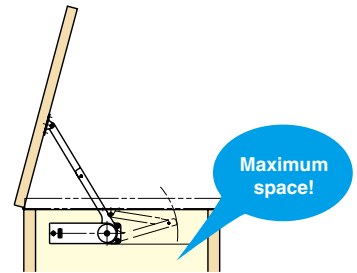
Toy boxes



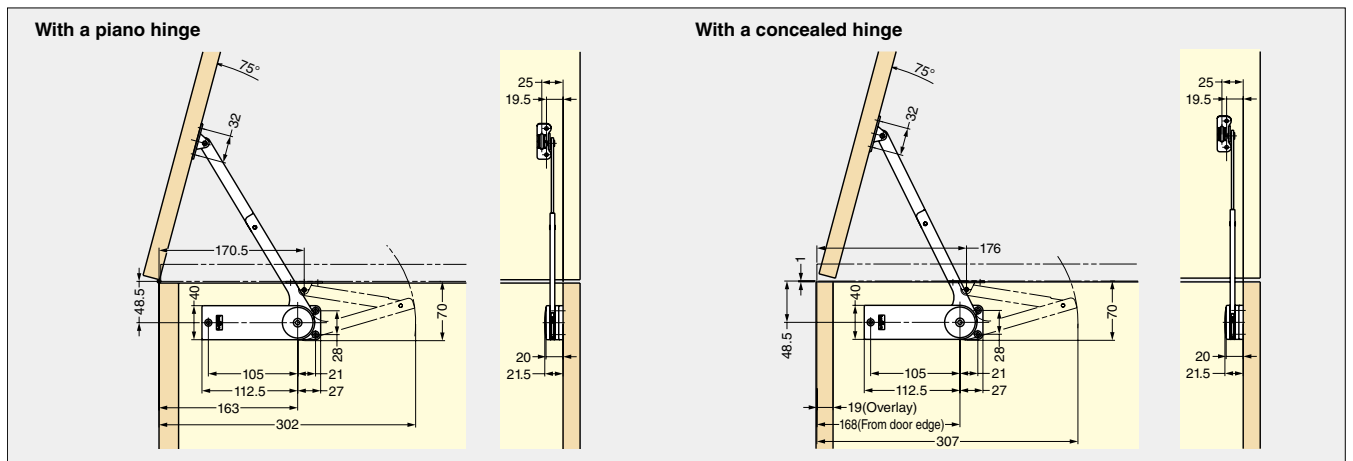
Display cabinets



Chairs with storage



Installation



Item Code	Item Name	Type	Material	Finish/Colour	Model	Torque Moment/pair	Weight	Carton
180-029-751	HDS-20S-HL-BL	Left	ABS/Steel	Nickel/Black	H	6.9 - 10.8 N·m (70 - 110 kgf·cm)	298 g	40 pcs
180-029-752	HDS-20S-HR-BL	Right		Nickel/White				
180-029-753	HDS-20S-HL-WT	Left		S	Nickel/Black	10.9 - 14.7 N·m (111 - 150 kgf·cm)	311 g	40 pcs
180-029-754	HDS-20S-HR-WT	Right						
180-029-755	HDS-20S-SL-BL	Left						
180-029-756	HDS-20S-SR-BL	Right						
180-029-757	HDS-20S-SL-WT	Left						
180-029-758	HDS-20S-SR-WT	Right						

SOFT-DOWN STAY



SDS-100, SDS-C100

LID SUPPORTS

SOFT-DOWN STAY



Features

- For downward-opening flap doors.
- Built-in damper causes flap to open gently near fully open radius.
- Non-handed.
- SDS-C100 has a built-in catch to hold the door in a closed position.
- SDS-100 does not have a catch and needs to have one installed separately.

Torque

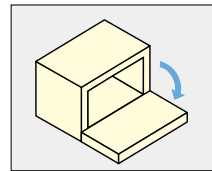
- With 1 stay
Torque = 3.43 - 4.9 N-m (35 - 50 kgf-cm)
- With 2 stays, the torque will be doubled.

Parts Included

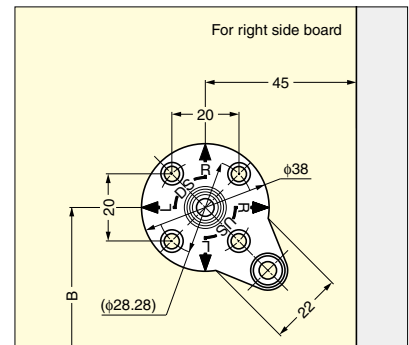
- Mounting plate SDS-A
- Countersunk head tapping screw 3.5x14

Sold Separately

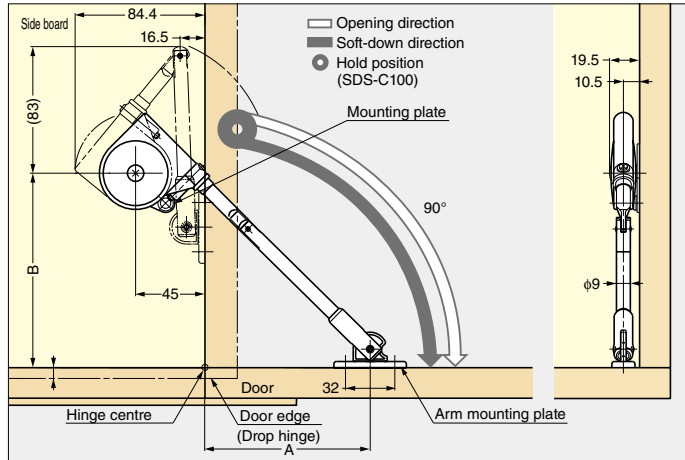
Face plate for glass doors SDS-50G (P.522)



Mounting Plate SDS-A



Installation (Opening Angle 90°)



Hinge Type	Arm Mounting Plate Position	
	A	B
Single Knuckle Hinge	100	135
Drop Hinge (SDH-001)	107*	126

*In case overlay 16 mm

Body

Item Code	Item Name	Type	Material	Finish/Colour	Torque Moment/piece	Weight	Box	Carton
180-100-261	SDS-100W	Without Catch	ABS/Steel	Nickel/White	3.43 - 4.9 N-m (35 - 50 kgf-cm)	167 g	20 pcs	100 pcs
*1 180-014-892	SDS-C100-W	With Catch	ABS/Steel	Nickel/White		167 g	20 pcs	100 pcs
180-100-262	SDS-100G	Without Catch	ABS/Steel	Nickel/Grey		167 g	20 pcs	100 pcs
180-100-266	SDS-C100-G	With Catch	ABS/Steel	Nickel/Grey		167 g	20 pcs	100 pcs
180-100-263	SDS-100U	Without Catch	ABS/Steel	Nickel/Umber		167 g	20 pcs	100 pcs
180-100-267	SDS-C100-U	With Catch	ABS/Steel	Nickel/Umber		167 g	20 pcs	100 pcs
180-027-278	SDS-100-B	Without Catch	ABS/Steel	Nickel/Black		167 g	20 pcs	100 pcs
*2 180-014-891	SDS-C100-B	With Catch	ABS/Steel	Nickel/Black		167 g	20 pcs	100 pcs

*1 Item Code has been revised. (Old item code : 180-100-265)
 *2 Item Code has been revised. (Old item code : 180-100-264)

SDS Face Plate (Sold Separately)

Item Code	Item Name	Material	Finish/Colour	Weight	Box	Carton
180-100-260	SDS-50G-CR	Zinc Alloy (ZDC)/ABS	Chrome/Black	25 g	50 pcs	200 pcs
180-928-046	SDS-50G-BL	Zinc Alloy (ZDC)/ABS	Black/Black	25 g	50 pcs	200 pcs



SOFT-DOWN STAY



SDS-200, SDS-201, SDS-210

LID SUPPORTS

SOFT-DOWN STAY



Features

- For top-opening flap doors.
- Built-in damper causes flap to close gently preventing slamming.
- Non-handed.
- Built-in catch holds flap in fully open position.
- 3 types available:
 - SDS-200: Opens 70°, works with single axis hinges.
 - SDS-201: Opens 70°, works with multi axes hinges.
 - SDS-210: Opens 105°, can be used with either single or multi axes hinges.

Torque

- With 1 stay
Torque = 3.43 - 4.9 N-m (35 - 50 kgf-cm)
- With 2 stays, the torque will be doubled.

Parts Included

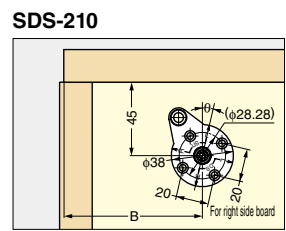
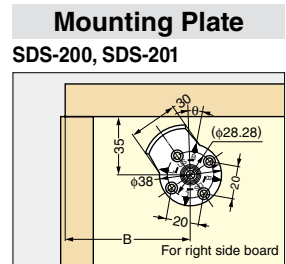
- Mounting plate
- Countersunk head tapping screw 3.5x14

Sold Separately

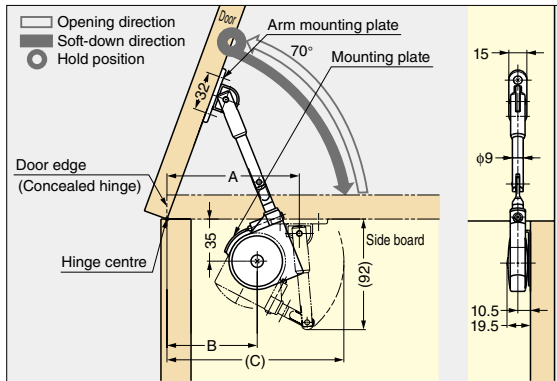
Face plate for glass doors SDS-50G (P.522)



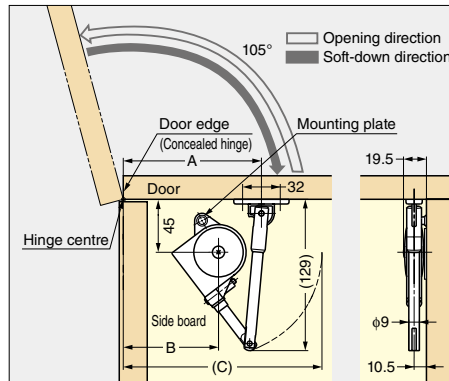
Mounting plate SDS-A for SDS-210 Mounting plate SDS-B for SDS-200 and SDS-201



Installation SDS-200 and SDS-201 (Opening Angle 70°)



Installation SDS-210 (Opening Angle 105°)



Note: For opening angle of 80°, 90° and 100°, please use SDS-C301N.

For installation details, please contact your local dealer.

Full Overlay

Item Name	A	B	C	θ
SDS-200	110	75	147	(0°)
SDS-201	109	74	146	(0°)
SDS-210	117.5	81	169	(5°)
	123.5	87	175	(12°)

Inset

Item Name	A	B	C	θ
SDS-200	98.5	63.5	135	(10°)
SDS-201	114	79	151	(0°)
SDS-210	108.3	70	157.3	(15°)

Incase door thickness 20 mm.

Material	Finish/Colour
ABS/Steel	Nickel/White (W)
	Grey (G)
	Umber (U)

Body

Item Code	Item Name	Opening Angle	Hinge	Torque Moment/piece	Weight	Box	Carton
180-100-268	SDS-200-W	70°	Butt Hinge	3.43 - 4.9 N-m (35 - 50 kgf-cm)	153 g	20 pcs	100 pcs
180-100-269	SDS-200-G				153 g	20 pcs	100 pcs
180-100-270	SDS-200-U				153 g	20 pcs	100 pcs
180-100-271	SDS-201-W		Concealed Hinge		153 g	20 pcs	100 pcs
180-100-272	SDS-201-G				153 g	20 pcs	100 pcs
180-100-273	SDS-201-U				153 g	20 pcs	100 pcs
180-100-274	SDS-210-W	105°	Butt Hinge/ Concealed Hinge	159 g	20 pcs	100 pcs	
180-100-275	SDS-210-G			159 g	20 pcs	100 pcs	
180-100-276	SDS-210-U			159 g	20 pcs	100 pcs	

SDS Face Plate (Sold Separately)

Item Code	Item Name	Material	Finish/Colour	Weight	Box	Carton
180-100-260	SDS-50G-CR	Zinc Alloy (ZDC)/ABS	Chrome/Black	25 g	50 pcs	200 pcs
180-928-046	SDS-50G-BL	Zinc Alloy (ZDC)/ABS	Black/Black	25 g	50 pcs	200 pcs



SOFT-DOWN STAY



SDS-C301N



Features

- For upward-opening flap doors.
- Built-in damper causes flap to close gently preventing slamming.
- Non-handed
- Can also be used with single axis hinges like concealed, piano or butt hinges.

Torque

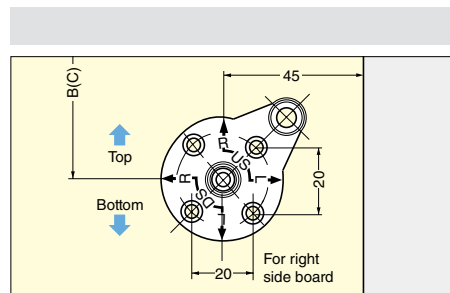
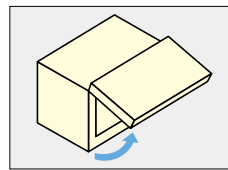
- With 1 stay
Torque = 3.92 - 6.86 N-m (40 - 70 kgf-cm)
- With 2 stays, the torque will be doubled.

Parts Included

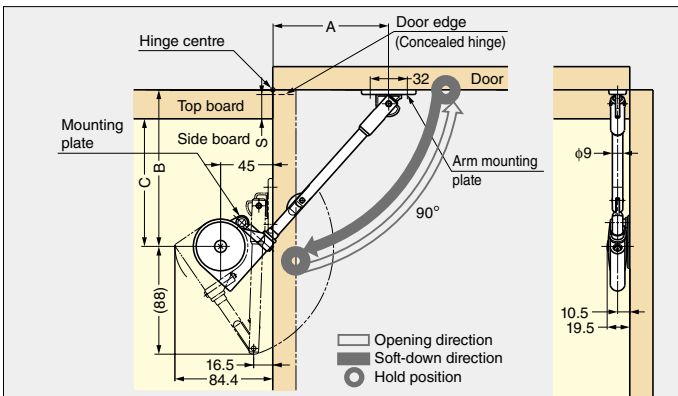
- Mounting plate SDS-A
- Countersunk head tapping screw 3.5x14

Sold Separately

Face plate for glass doors SDS-50G (P.522)



Installation (Opening Angle 90°)



Overlay	Hinge Type	A	B	C
Full Overlay	Single Knuckle Hinge	100	135	-
Full Overlay	Concealed Hinge	108	-	143-S
Inset	Single Knuckle Hinge	97*	132*	-

S = Overlay

* In case the door thickness is 20 mm.

Body

Item Code	Item Name	Material	Finish/Colour	Torque Moment/piece	Weight	Box	Carton
* 180-012-151	SDS-C301N W	ABS/Steel	Nickel/White	3.92 - 6.86 N-m (40 - 70 kgf-cm)	165 g	20 pcs	100 pcs
180-100-284	SDS-C301N G	ABS/Steel	Nickel/Grey		165 g	20 pcs	100 pcs
180-100-285	SDS-C301N BL	ABS/Steel	Nickel/Black		165 g	20 pcs	100 pcs

* Item code has been revised. (Old item code : 180-100-283)

SDS Face Plate (Sold Separately)

Item Code	Item Name	Material	Finish/Colour	Weight	Box	Carton
180-100-260	SDS-50G-CR	Zinc Alloy (ZDC)/ABS	Chrome/Black	25 g	50 pcs	200 pcs
180-928-046	SDS-50G-BL	Zinc Alloy (ZDC)/ABS	Black/Black	25 g	50 pcs	200 pcs

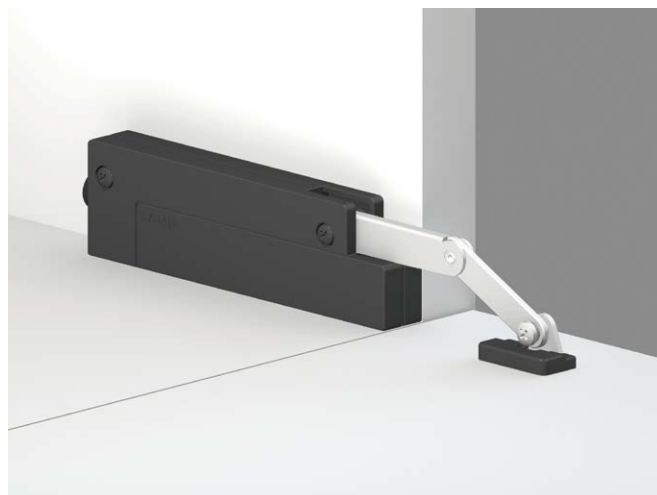


CSD-10-TV

COMPACT SOFT-DOWN STAY

LID SUPPORTS

COMPACT SOFT-DOWN STAY



Black



White

Features

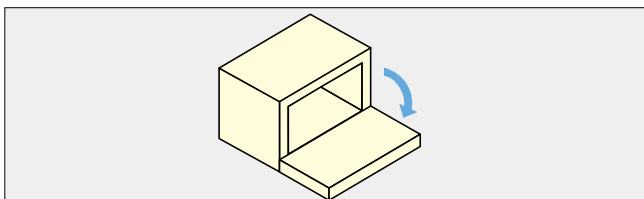
- Soft-down stay for downward-opening flap doors. Works well with short flap doors.
- Simply installation by just aligning the stay with the sides and fastening with screws. (For single axis hinges and drop hinges)
- Template makes installing the mounting plate easy.
- When closing the flap, the damper provides no resistance and also has a lift assist function for easy lifting and operation (Type M and H only)
- Non handed.
- Placed at the bottom of interior of the cabinet, significantly reducing dead space.
- By using the cover, both the body and the mounting plate will have the same color.

Parts Included

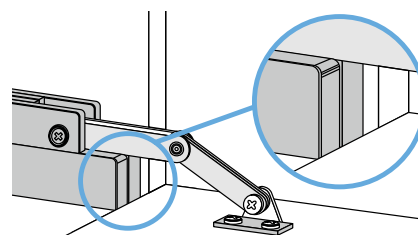
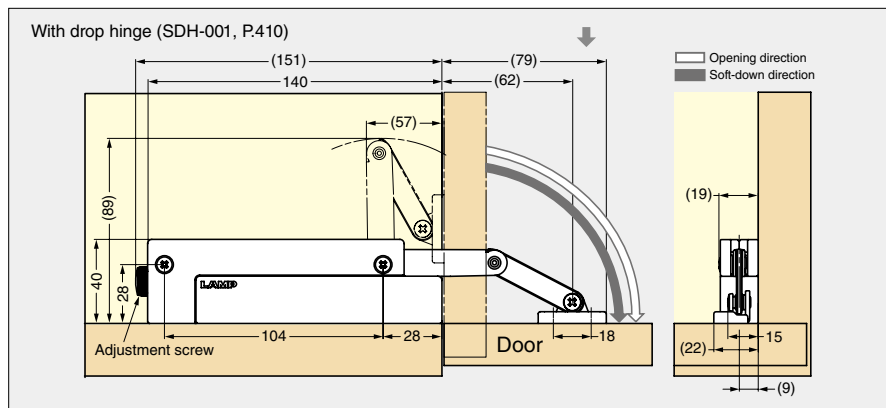
- Mounting plate and cover
- Binding head tapping screw 3.5x30 (for main body)
- Binding head tapping screw 3.5x15 (for mounting plate)

Sold Separately

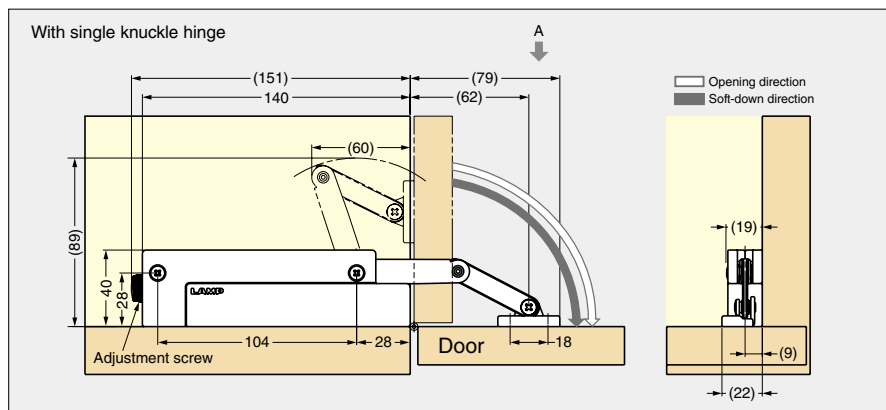
- Butt hinge
- Drop hinge SDH-P, SDH-001
- Drop hinge for glass door SDH-G
- Face plate for glass door SDH-FP, SDS-50G
- Mounting plate for glass door NSDX-GZ



Installation

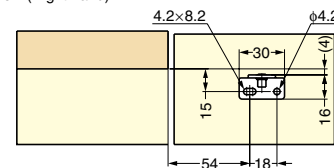


*Cannot be installed with concealed hinges

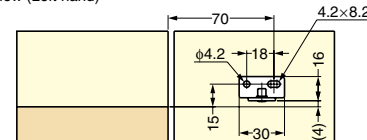


Installation of Mounting Plate

A-view (Right hand)



A-view (Left hand)



Item Code	Item Name	Material	Finish/Colour	Torque Moment/piece	Weight	Box	Carton
180-033-207	CSD-10-TV-L-WT	ABS/Steel	Nickel/White	1.0 - 2.0 N·m	125 g	10 pcs	100 pcs
180-033-208	CSD-10-TV-L-BL	ABS/Steel	Nickel/Black	(10.2 - 20.4 kgf·cm)	125 g	10 pcs	100 pcs
180-033-209	CSD-10-TV-M-WT	ABS/Steel	Nickel/White	2.0 - 3.0 N·m	130 g	10 pcs	100 pcs
180-033-210	CSD-10-TV-M-BL	ABS/Steel	Nickel/Black	(20.4 - 30.6 kgf·cm)	130 g	10 pcs	100 pcs
180-033-211	CSD-10-TV-H-WT	ABS/Steel	Nickel/White	3.0 - 4.0 N·m	130 g	10 pcs	100 pcs
180-033-212	CSD-10-TV-H-BL	ABS/Steel	Nickel/Black	(30.6 - 40.8 kgf·cm)	130 g	10 pcs	100 pcs



ADJUSTABLE SOFT-DOWN STAY



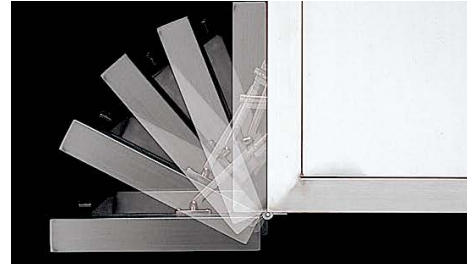
NSD-10



Features

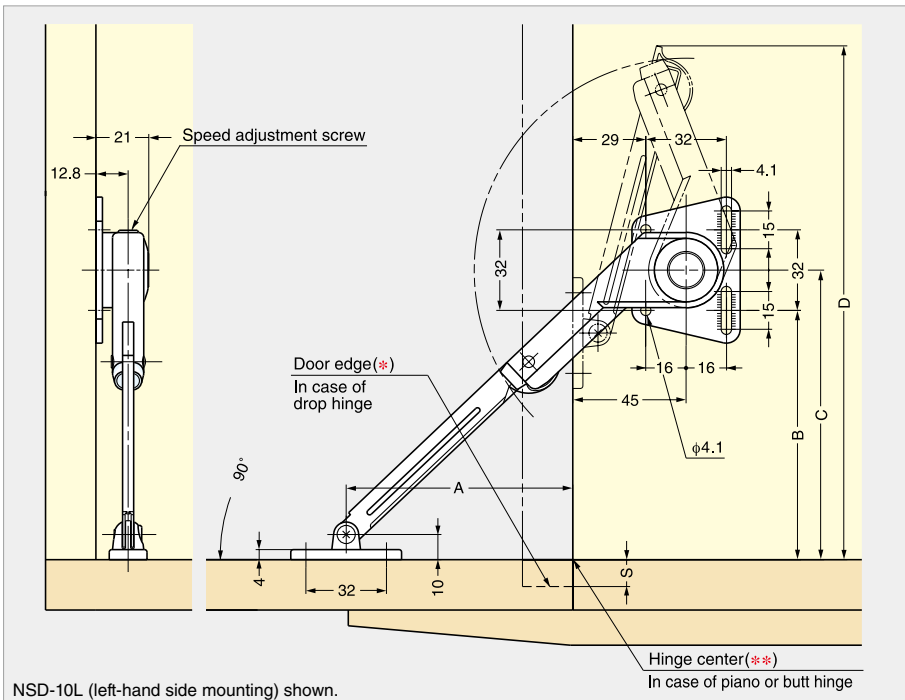
- For downward-opening flap doors.
- Can also be used with concealed, piano, or butt hinges.
- Designed to hold the door in closed position.
- Successfully passed 50,000 open/close cycles in a private test.
- Opening speed adjustable.
- Torque Calculation :
Torque = Door Height x 1/2 x Door Weight.
Per Piece : 20 - 70 kgf-cm.
Per Pair : 40 - 140 kgf-cm.

Material	Finish
Zinc Alloy, Steel	Bright Nickel

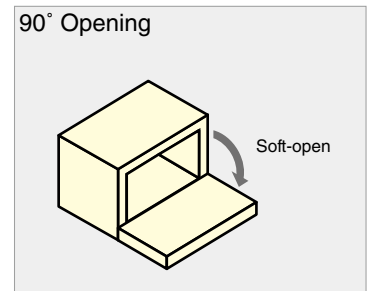


LID SUPPORTS

ADJUSTABLE SOFT-DOWN STAY



NSD-10L (left-hand side mounting) shown.
The distance for A, B, C is measured from "door edge (*)" and "top surface of bottom board" when drop hinges are used, and from "hinge center (**)" and "top surface of bottom board" when piano or butt hinges are used.



Hinge Type	A	B	C	D
Drop Hinge	97	106-S	122-S	211-S
Piano / Butt Hinge	90	99	115	204

Note: S = Overlay

Item Code	Item Name	Weight	Box	Carton
180-109-376	NSD-10R	210 g	20 pcs	80 pcs
180-109-381	NSD-10L	210 g	20 pcs	80 pcs



ADJUSTABLE SOFT-DOWN STAY



NSD-20

LID SUPPORTS

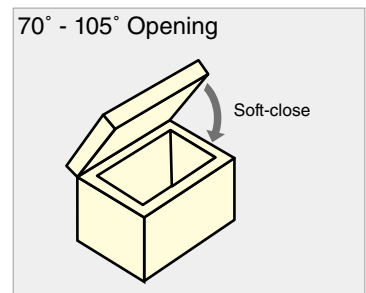
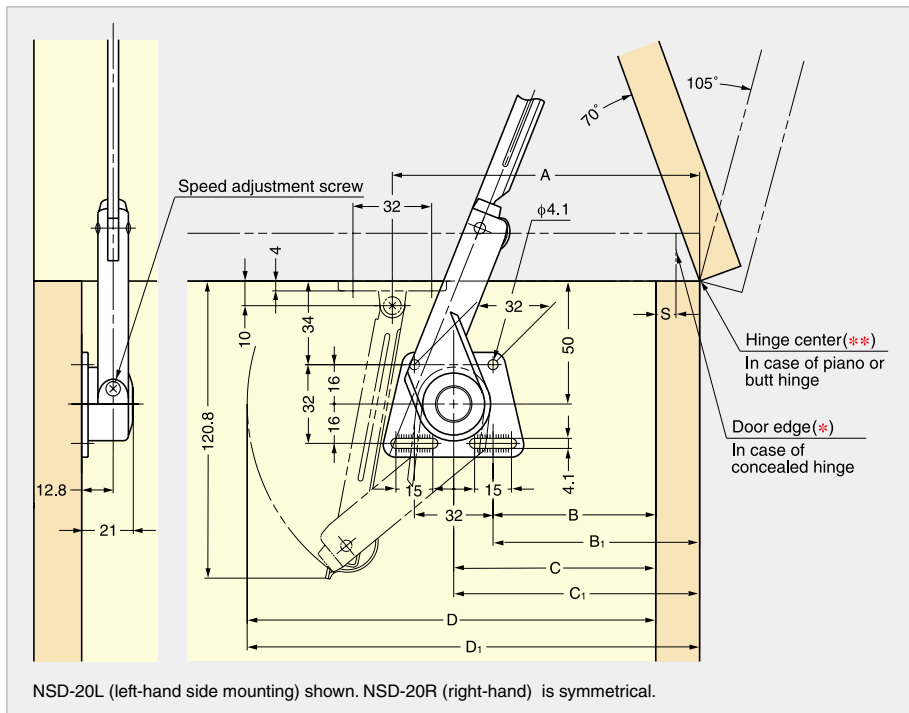
ADJUSTABLE SOFT-DOWN STAY



Features

- For top-opening flap doors.
- Can also be used with concealed, piano, or butt hinges.
- Opening angle adjustable from 70° to 105°.
- Designed to hold the flap in a fully opened position.
- Successfully passed 50,000 open/close cycles in a private test.
- Closing speed adjustable.
- Torque Calculation :
Torque = Door Height x 1/2 x Door Weight.
Per Piece : 20 - 70 kgf-cm
Per Pair : 40 - 140 kgf-cm

Material	Finish
Zinc Alloy, Steel	Bright Nickel



Opening Angle	Hinge Type	A	B	C	D	B ₁	C ₁	D ₁
70°	Concealed Hinge	126	85-S	101-S	185-S	-	-	-
	Piano / Butt Hinge	125	-	-	-	84	100	184
105°	Concealed Hinge	103	62-S	78-S	162-S	-	-	-
	Piano / Butt Hinge	97	-	-	-	56	72	156

Note: S = Overlay

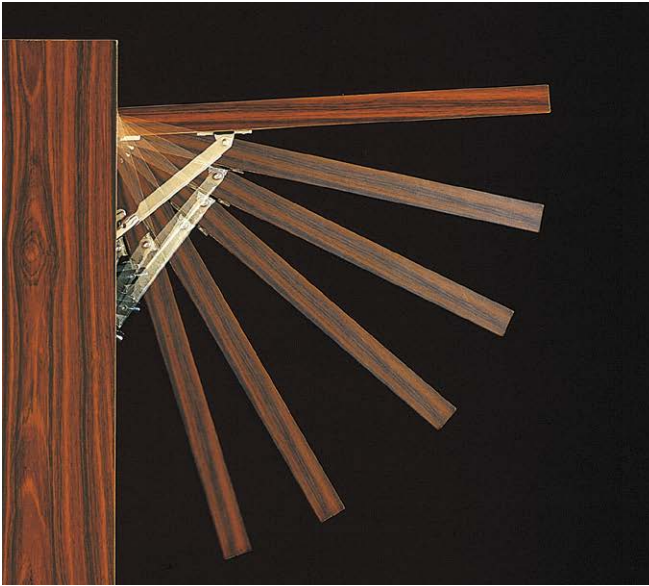
Item Code	Item Name	Weight	Box	Carton
180-104-103	NSD-20R	210 g	20 pcs	80 pcs
180-104-102	NSD-20L	210 g	20 pcs	80 pcs



ADJUSTABLE SOFT-DOWN STAY



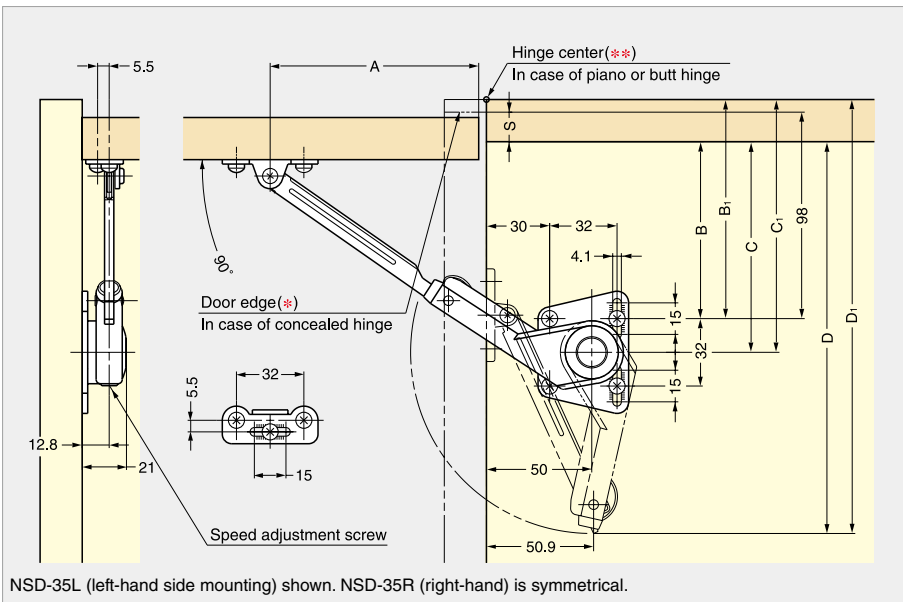
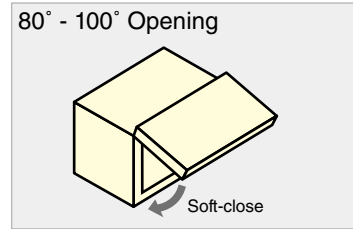
NSD-35



Features

- For upward-opening flap doors.
- Can also be used with concealed, piano, or butt hinges.
- Opening angle adjustable from 80° to 100°.
- Designed to hold the door in a fully opened position.
- Type that holds the door at both 65° and 90° also available.
- Successfully passed 50,000 open/close cycles in a private test.
- Closing speed adjustable.
- Torque Calculation :
 Torque = Door Height x 1/2 x Door Weight.
 Per Piece : 20 - 70 kgf-cm.
 Per Pair : 40 - 140 kgf-cm.

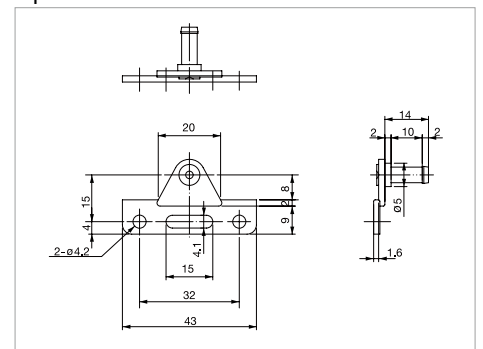
Material	Finish
Zinc Alloy, Steel	Bright Nickel



LID SUPPORTS

ADJUSTABLE SOFT-DOWN STAY

Optional Parts



NSDX-AZ (angle bracket) for 20 mm thickness aluminium frame.

Opening Angle	80°		90°		100°	
	Down		Middle		Up	
Position of Plates	Mounting Plate	Arm Bracket	Mounting Plate	Arm Bracket	Mounting Plate	Arm Bracket
For Hinge Center (Up) ↓ (Down)						

Hinge Type	A	B	C	D	B ₁	C ₁	D ₁
Concealed Hinge	99	98-S	114-S	200-S	-	-	-
Piano / Butt Hinge	93	-	-	-	92	108	194

Note: S = Overlay

Item Code	Item Name	Weight	Box	Carton
108-109-280	NSD-35R	210 g	20 pcs	80 pcs
108-109-279	NSD-35L	210 g	20 pcs	80 pcs





NSDX-10 (R/L)

ADJUSTABLE SOFT-DOWN STAY



Features

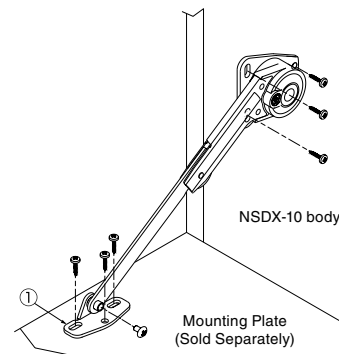
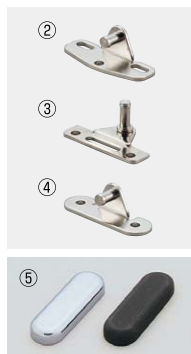
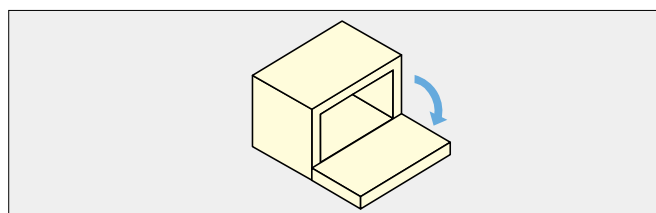
- For downward-opening flap doors.
- Can also be used with piano, butt, or drop hinges.
- Built-in catch holds flap in closed position.
- Successfully passed 30,000 open/close cycles in a private test.
- Opening speed adjustable.

Torque

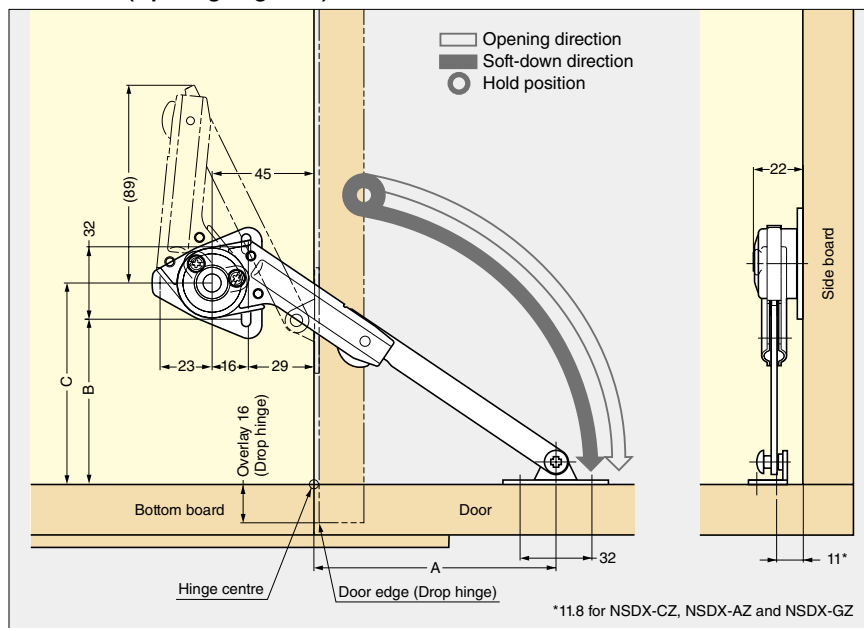
- With 1 stay
Torque = 1.96 - 6.86 N·m (20 - 70 kgf·cm)
- With 2 stays, the torque will be doubled.

Sold Separately

- ① Mounting plate NSDX-SZ (below)
- ② Mounting plate NSDX-CZ (P.522)
- ③ Mounting plate NSDX-AZ for 20 mm aluminium frame (P.522)
- ④ Mounting plate NSDX-GZ for glass door (P.522)
- ⑤ SDS-50G for glass door (P.522)



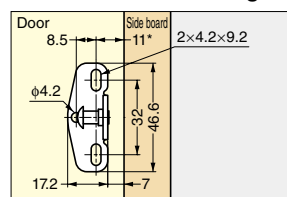
Installation (Opening Angle 90°)



Hinge Type	A	B	C
Drop Hinge (SDH-001)	97*1	91	107
Drop Hinge (SDH-P)	98*2	88	104
Single Knuckle Hinge	90	99	115

- *1: In case overlay 16 mm.
- *2: In case overlay 19 mm.

Installation for Mounting Plate



Body

Item Code	Item Name	L/R	Material	Finish	Torque Moment /piece	Catch Function		Weight	Box	Carton
						Opened Position	Closed Position			
180-109-008	NSDX-10R	Right	Zinc Alloy (ZDC), Steel	Nickel	1.96 - 6.86 N·m (20 - 70 kgf·cm)	x	○	181 g	20 pcs	80 pcs
180-109-009	NSDX-10L	Left	Zinc Alloy (ZDC), Steel	Nickel		x	○	181 g	20 pcs	80 pcs

Mounting Plate (Sold Separately)

Item Code	Item Name	Type	Weight	Box	Carton
180-109-032	NSDX-SZ	Screw on	14 g	160 pcs	640 pcs

SDS Face Plate (Sold Separately)

Item Code	Item Name	Material	Finish/Colour	Weight	Box	Carton
180-100-260	SDS-50G-CR	Zinc Alloy (ZDC)/ABS	Chrome/Black	25 g	50 pcs	200 pcs
180-928-046	SDS-50G-BL	Zinc Alloy (ZDC)/ABS	Black	25 g	50 pcs	200 pcs

*Please use with NSDX-GZ mounting plate.

LID SUPPORTS

ADJUSTABLE SOFT-DOWN STAY



SHORT ARM SOFT-DOWN STAY



NSDX-10 (R/L) K-TV



Features

- Soft-down stay for downward-opening flap doors. Works well with short flap doors.
- Can also be used with piano, butt, or drop hinges.
- Built-in catch holds flap in closed position.
- Successfully passed 30,000 open/close cycles in a private test.
- Opening speed adjustable.

Torque

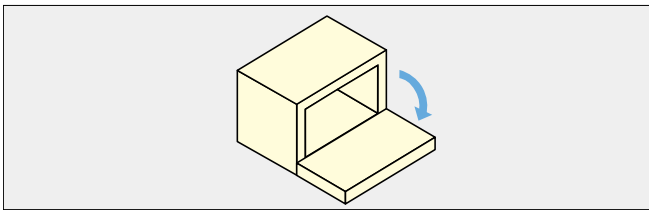
- With 1 stay
Torque = 0.98 - 1.96 N·m (10 - 20 kgf·cm)
- With 2 stays, the torque will be doubled.

Parts Included

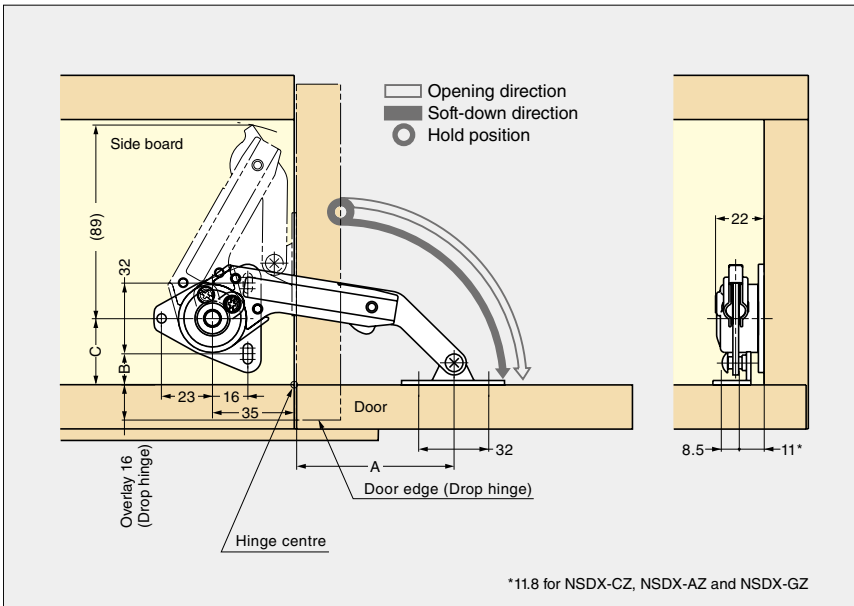
- Mounting plate NSDX-SZ
- Binding head tapping screw 3.5×15

Optional Parts

- Mounting plate NSDX-CZ (P.522)
- Mounting plate NSDX-AZ for 20 mm aluminium frame (P.522)
- Mounting plate NSDX-GZ for glass door (P.522)
- SDS-50G for glass door (P.522)



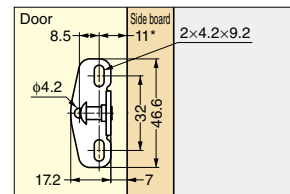
Installation (Opening Angle 90°)



Hinge Type	A	B	C
Drop Hinge (SDH-001)	74*	14	30
Single Knuckle Hinge	71	27	43

*In case overlay 16 mm.

Installation for Mounting Plate



Body

Item Code	Item Name	L/R	Material	Finish	Torque Moment /piece	Catch Function		Weight	Box	Carton
						Closed Position	Opened Position			
180-016-425	NSDX-10RK-TV	Right	Zinc Alloy (ZDC), Steel	Nickel	0.98 - 1.96 N·m	○	×	143 g	20 pcs	80 pcs
180-016-424	NSDX-10LK-TV	Left	Zinc Alloy (ZDC), Steel	Nickel	(10 - 20 kgf·cm)	○	×	143 g	20 pcs	80 pcs

Mounting Plate (Optional Parts)

Item Code	Item Name	Type
180-109-460	NSDX-CZ	Clip-on
180-109-019	NSDX-AZ	Clip-on for 20 mm width Alumi Frame
180-109-459	NSDX-GZ	Clip-on for Glass Door

SDS Face Plate (Optional Parts)

*Please use with NSDX-GZ mounting plate.

Item Code	Item Name	Material	Finish/Colour	Weight	Box	Carton
180-100-260	SDS-50G-CR	Zinc Alloy (ZDC)/ABS	Chrome/Black	25 g	50 pcs	200 pcs
180-928-046	SDS-50G-BL	Zinc Alloy (ZDC)/ABS	Black	25 g	50 pcs	200 pcs



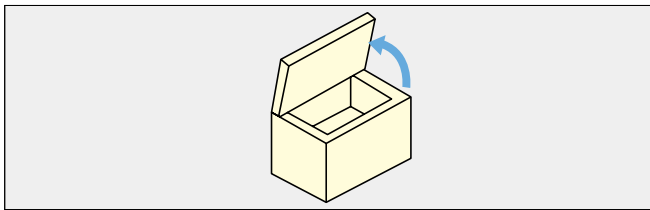


NSDX-20 (R/L)

ADJUSTABLE SOFT-DOWN STAY

LID SUPPORTS

ADJUSTABLE SOFT-DOWN STAY



Features

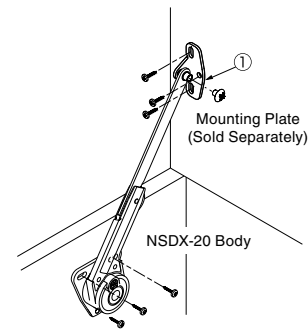
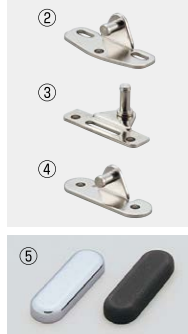
- For top-opening flap doors.
- Built-in damper causes flap to close gently preventing slamming.
- Built-in catch holds flap in fully opened position.
- Can also be used with concealed, piano, or butt hinges.
- Depending on installation position, opening angle can be set to either 70° or 105°.
- Successfully passed for the 30,000 open/close private cycle test.
- Closing speed adjustable.

Torque

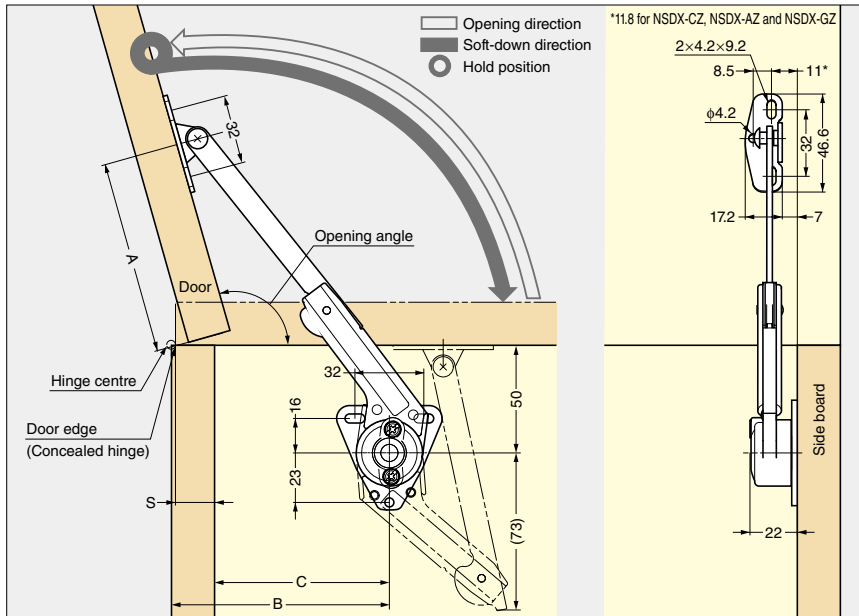
- With 1 stay
Torque = 1.96 - 6.86 N·m (20 - 70 kgf·cm)
- With 2 stays, the torque will be doubled.
Torque = Door weight (kg) × 9.8 × Length from the axis to the centre of gravity of the door (m)

Sold Separately

- ① Mounting plate NSDX-SZ (below)
- ② Mounting plate NSDX-CZ (P.522)
- ③ Mounting plate NSDX-AZ for 20 mm aluminium frame (P.522)
- ④ Mounting plate NSDX-GZ for glass door (P.522)
- ⑤ SDS-50G for glass door (P.522)



Installation (Opening Angle 105°)



Hinge Type		A	B	C
70° opening	Concealed Hinge	126	-	101-S
	Single Knuckle Hinge	125	100	-
105° opening	Concealed Hinge	103	-	78-S
	Single Knuckle Hinge	97	72	-

S = Overlay

Body

Item Code	Item Name	L/R	Material	Finish	Torque Moment /piece (20 - 70 kgf·cm)	Catch Function		Weight	Box	Carton
						Opened Position	Closed Position			
180-109-481	NSDX-20R	Right	Zinc Alloy (ZDC), Steel	Nickel	1.96 - 6.86 N·m (20 - 70 kgf·cm)	○	×	181 g	20 pcs	80 pcs
180-109-480	NSDX-20L	Left	Zinc Alloy (ZDC), Steel	Nickel		○	×	181 g	20 pcs	80 pcs

Mounting Plate (Sold Separately)

Item Code	Item Name	Type	Weight	Box	Carton
180-109-032	NSDX-SZ	Screw on	14 g	160 pcs	640 pcs

SDS Face Plate (Sold Separately)

*Please use with NSDX-GZ mounting plate.

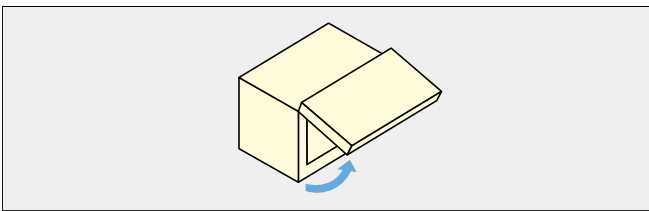
Item Code	Item Name	Material	Finish/Colour	Weight	Box	Carton
180-100-260	SDS-50G-CR	Zinc Alloy (ZDC)/ABS	Chrome/Black	25 g	50 pcs	200 pcs
180-928-046	SDS-50G-BL	Zinc Alloy (ZDC)/ABS	Black	25 g	50 pcs	200 pcs



ADJUSTABLE SOFT-DOWN STAY



NSDX-35 (R/L)



Features

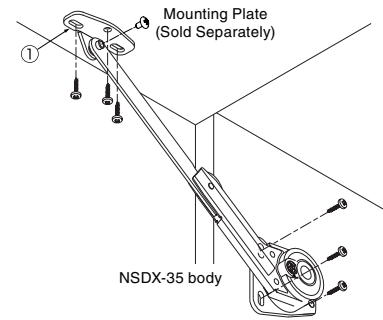
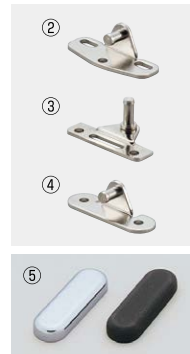
- For upward-opening flap doors.
- Built-in damper causes flap to close gently preventing slamming.
- Built-in catch holds flap in fully opened position position.
- Can also be used with concealed, piano, or butt hinges.
- Depending on installation position, opening angle can be set to 80°, 90° or 100°.
- Two stop version also available (adds another stop at either 60°, 65° or 70° depending on installation position)
- Successfully passed 30,000 open/close cycles in a private test.
- Closing speed adjustable.

Torque

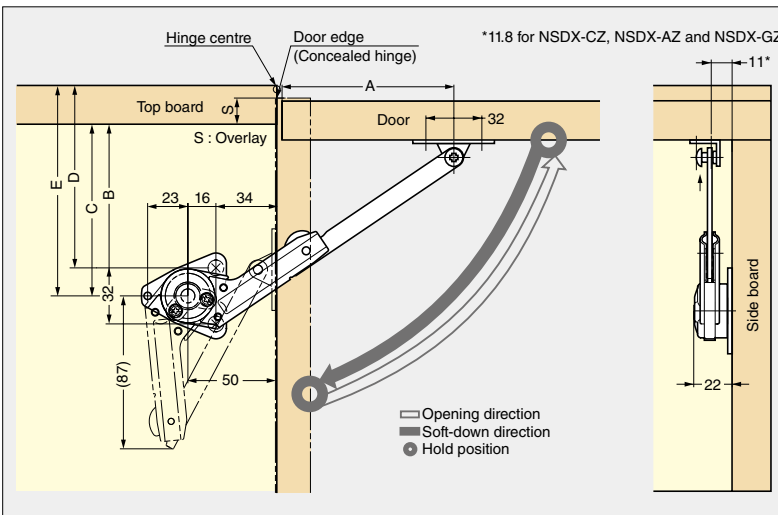
- With 1 stay
Torque = 1.96 - 6.86 N·m (20 - 70 kgf·cm)
- With 2 stays, the torque will be doubled.

Sold Separately

- ① Mounting plate NSDX-SZ (below)
- ② Mounting plate NSDX-CZ (P.522)
- ③ Mounting plate NSDX-AZ for 20 mm aluminium frame (P.522)
- ④ Mounting plate NSDX-GZ for glass door (P.522)
- ⑤ SDS-50G for glass door (P.522)



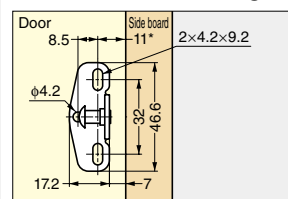
Installation (Opening Angle 90°)



Hinge Type	A	B	C	D	E
80° opening Concealed Hinge	106	105 -S	121-S	-	-
80° opening Single Knuckle Hinge	100	-	-	99	115
90° opening Concealed Hinge	98	97 -S	113-S	-	-
90° opening Single Knuckle Hinge	91.5	-	-	90.5	106.5
100° opening Concealed Hinge	92.5	91.5-S	107.5-S	-	-
100° opening Single Knuckle Hinge	85	-	-	84	100

S = Overlay

Installation for Mounting Plate



Body

Item Code	Item Name	L/R	Material	Finish	Torque Moment /piece	Catch Function		Weight	Box	Carton
						Opened Position	Closed Position			
180-109-028	NSDX-35R	Right	Zinc Alloy (ZDC), Steel	Nickel	1.96 - 6.86 N·m (20 - 70 kgf·cm)	○	○	181 g	20 pcs	80 pcs
180-109-029	NSDX-35L	Left	Zinc Alloy (ZDC), Steel	Nickel		○	○	181 g	20 pcs	80 pcs
180-109-026	NSDX-35R 2S	Right	Zinc Alloy (ZDC), Steel	Nickel	1.96 - 4.9 N·m (20 - 50 kgf·cm)	○	○	181 g	20 pcs	80 pcs
180-109-027	NSDX-35L 2S	Left	Zinc Alloy (ZDC), Steel	Nickel		○	○	181 g	20 pcs	80 pcs

Mounting Plate (Sold Separately)

Item Code	Item Name	Type	Weight	Box	Carton
180-109-032	NSDX-SZ	Screw on	14 g	160 pcs	640 pcs

SDS Face Plate (Sold Separately)

Item Code	Item Name	Material	Finish/Colour	Weight	Box	Carton
180-100-260	SDS-50G-CR	Zinc Alloy (ZDC)/ABS	Chrome/Black	25 g	50 pcs	200 pcs
180-928-046	SDS-50G-BL	Zinc Alloy (ZDC)/ABS	Black	25 g	50 pcs	200 pcs

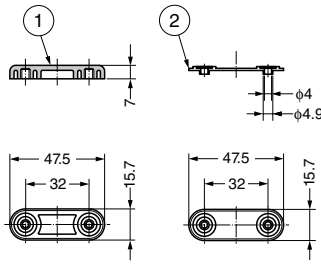
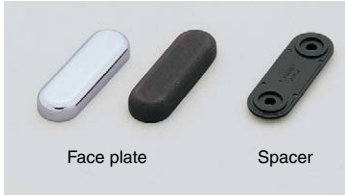
*Please use with NSDX-GZ mounting plate.



FACE PLATE FOR GLASS DOOR



SDS-50G



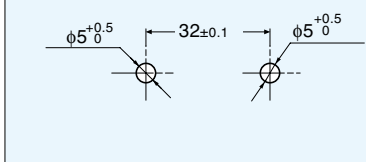
Features

Can be used with SDS or NSDX-GZ.

Parts Included

Countersunk head screw M4x14

Cut Out Dimensions

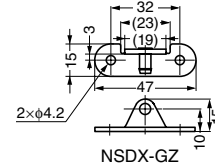
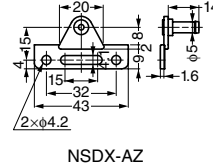
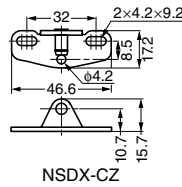


No.	Part Name	Material	Finish/Colour	Carton
①	Face Plate	Zinc Alloy (ZDC)	Chrome (CR), Black (BL)	1 pc
②	Spacer	ABS	Black	2 pcs

Item Code	Item Name	Weight	Box	Carton
180-100-260	SDS-50G-CR	25 g	50 pcs	200 pcs
180-928-046	SDS-50G-BL	25 g	50 pcs	200 pcs

MOUNTING PLATE FOR NSDX

NSDX-CZ, NSDX-AZ, NSDX-GZ



Item Code	Item Name	Type	Weight	Box	Carton
180-109-460	NSDX-CZ	Clip on	13 g	160 pcs	640 pcs
180-109-019	NSDX-AZ	Clip on for 20 mm width Aluminium Frame	11 g	320 pcs	1280 pcs
180-109-459	NSDX-GZ	Clip on Mounting Plate for Glass Door	14 g	8 pcs	640 pcs

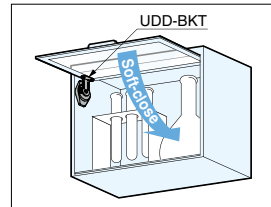
BRACKET FOR DISK DAMPER UDD



UDD-BKT



Application Example



Features

Bracket of disk damper UDD (P.523) for upward-opening doors.

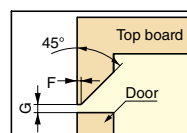
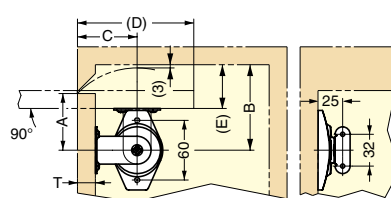
Remarks

- Catch is needed for holding door in opened position.
- SDS-50G (above) face plate available for glass/acrylic doors.

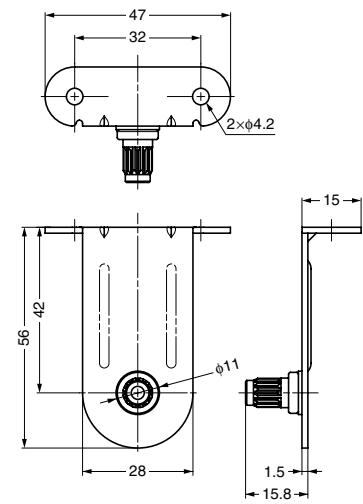
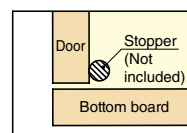
Cut Out Dimensions

No.	Door Thickness T	A	B	C	D	E
①	5	46	70	49	(95)	(26)
②	15	54	82	57	(111)	(40)
③	18	57	86	60	(117)	(44)

*① is for glass/acrylic door with SDS-50G.
②, ③ is for wooden door.



F	G
1	3
2	4
3	5



Item Code	Item Name	Material	Finish	Weight	Carton
180-026-764	UDD-BKT	Stainless Steel (SUS304)	Plain	33 g	60 pcs

DISK DAMPER



UDD



Features

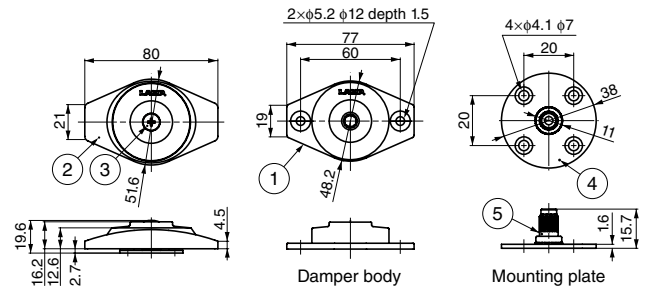
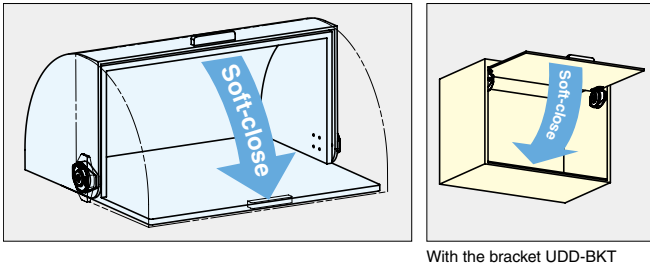
- Passed 30,000 cycles in a private test.
- Designed to be installed at the center axis of rotating flap doors.
- Simple design integrates well with frames for a sleek design.
- 3 different torque amounts to satisfy a wide range of flap doors.
- Great solution for food showcases and acrylic displays.
- When combined with the UDD-BKT, can be used for upward-opening doors.

Sold Separately

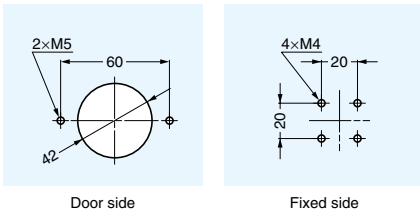
Bracket UDD-BKT (P.522)



Application Example

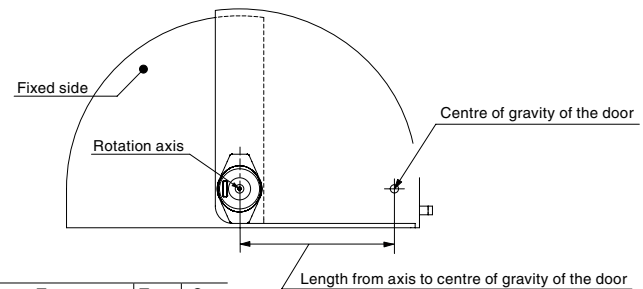


Cut Out Dimensions



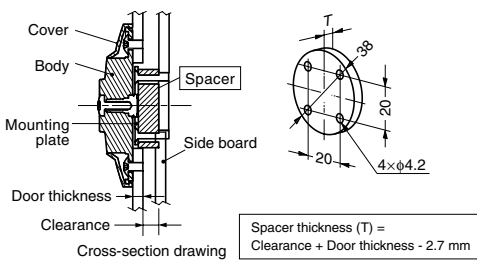
Torque Calculation

Torque =
Door weight (kg) × 9.8 × Length from axis to centre of gravity of the door



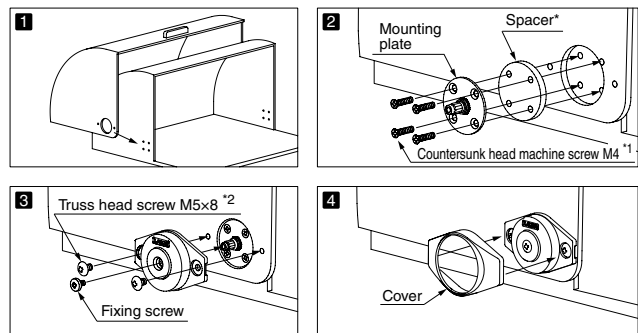
Torque	Type	Qty
1.0 - 2.0 N-m	S	2 pcs
2.0 - 4.0 N-m	M	2 pcs
4.0 - 6.0 N-m	H	2 pcs

Spacer



*Customer should provide spacer.

How to Install



*1, *2 screws and spacer not included.

Item Code	Item Name	Damping Direction	Torque Moment/piece	Weight	Box
180-022-306	UDD-S-L	Anticlockwise	0.5 - 1.0 N-m	99 g	20 pcs
180-022-307	UDD-S-R	Clockwise	(5.1 - 10.2 kgf-cm)	99 g	20 pcs
180-022-308	UDD-M-L	Anticlockwise	1.0 - 2.0 N-m	99 g	20 pcs
180-022-309	UDD-M-R	Clockwise	(10.2 - 20.4 kgf-cm)	99 g	20 pcs
180-022-310	UDD-H-L	Anticlockwise	2.0 - 3.0 N-m	99 g	20 pcs
180-022-311	UDD-H-R	Clockwise	(20.4 - 30.6 kgf-cm)	99 g	20 pcs

No.	Part Name	Material	Finish/Colour
①	Damper Body	ABS	Light Grey
②	Cover	ABS	Light Grey
③	Screw	Steel	Nickel
④	Mounting Plate	Steel	Nickel
⑤	Shaft	Steel	Zinc Chromate

LIFT-ASSIST DAMPER



LAD



Features

- Great solution for counter flaps at bars, restaurants, and receptions.
- Built-in damper provides soft closing near closing radius, preventing slamming.
- Damper will function even if released close to closing radius.
- Lift-assist makes counter flaps feel light and easy to lift.
- Can be retrofitted to existing counter flaps without a mortise.
- Easy to align installation position using the included template.
- Thin profile. When opened, unit has very small 35mm protrusion.
- Successfully passed 100,000 open/close cycles in a private test.
- Suitable flap thickness: 15 - 25 mm.

Maximum possible flap thickness by using spacer LAD-DP is 40 mm.

Parts Included

Binding head tapping screw 4x16

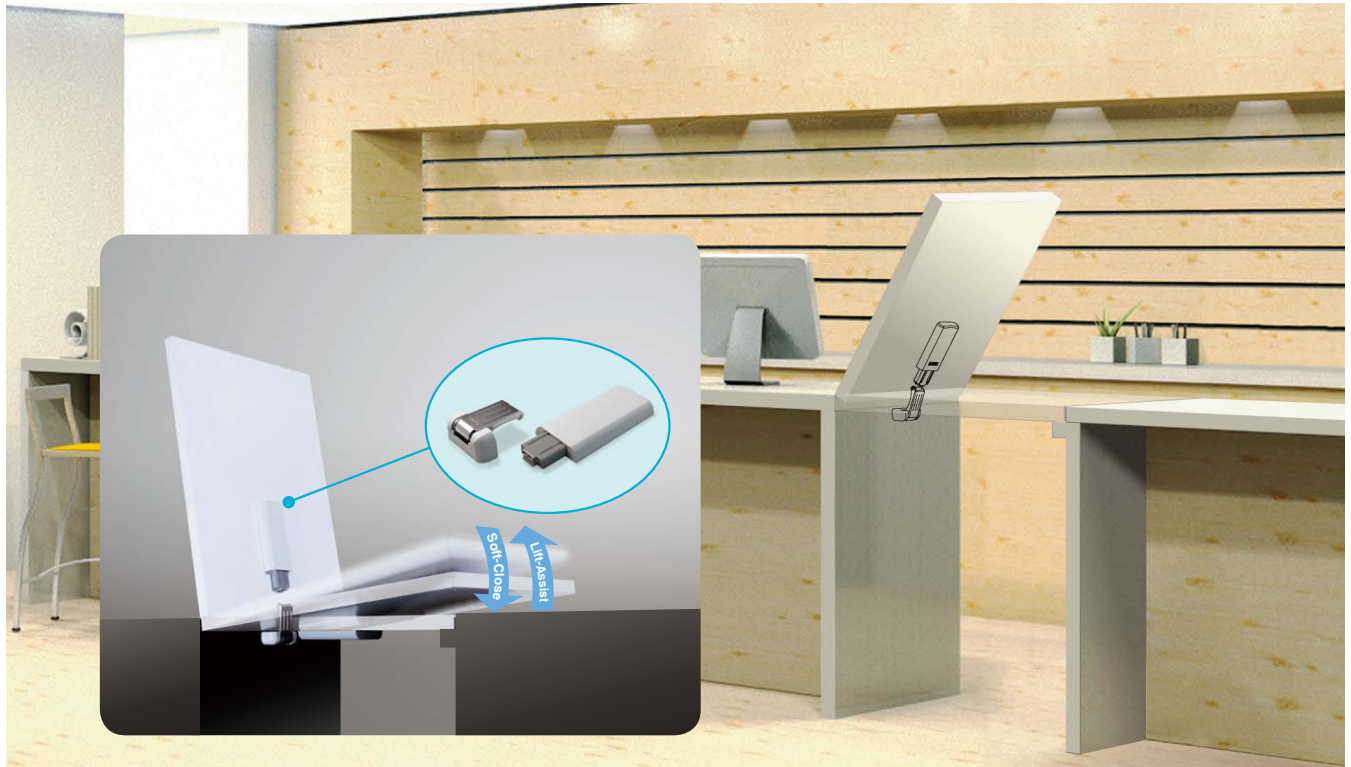
Recommended Hinge

Concealed hinge R (P416)

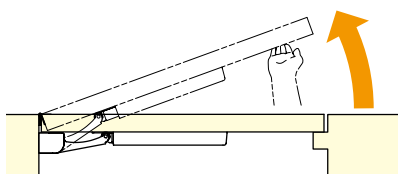
LID SUPPORTS

LIFT-ASSIST DAMPER

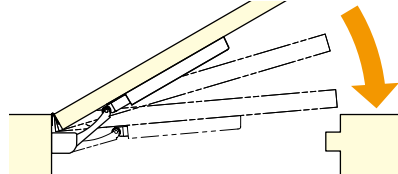
Application Example



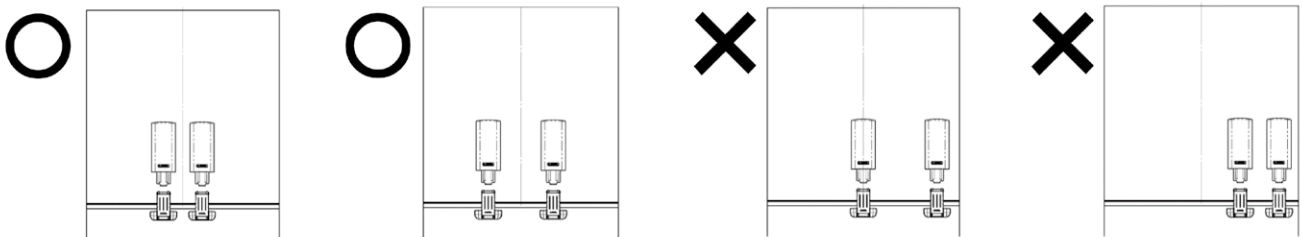
Lift-Assist

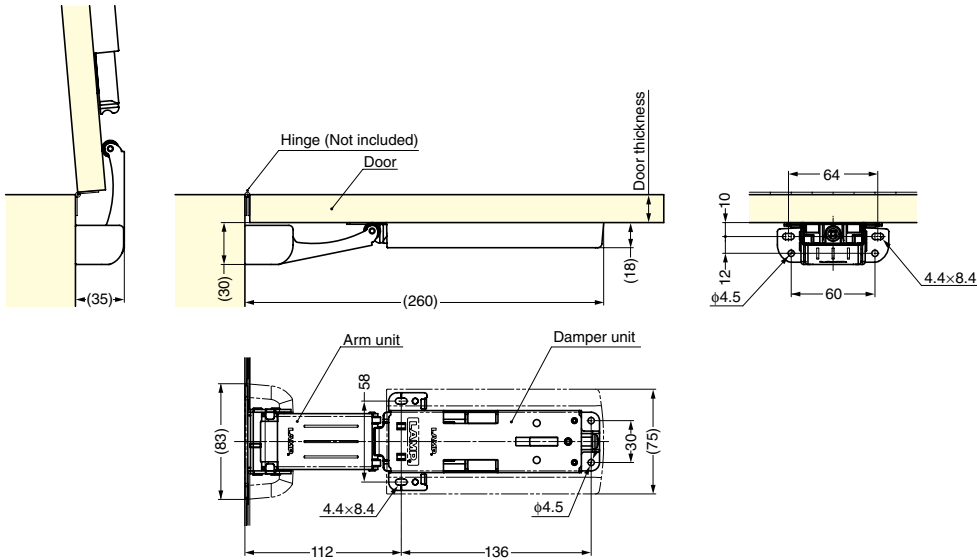


Soft-Close

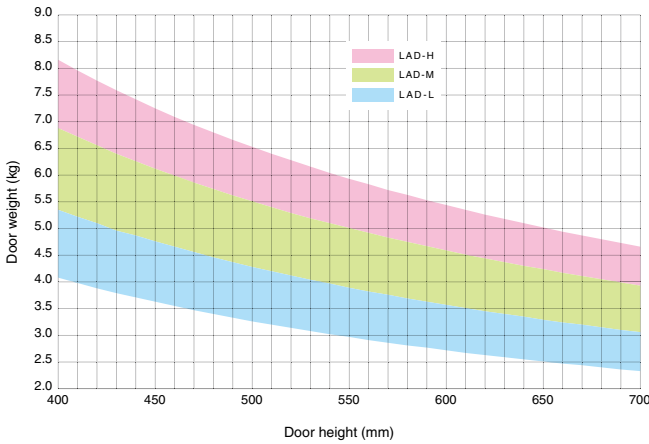


Installation Position for 2 pcs





Door Size Ranges: 1 pc Use (*2 pcs use possible. Torque moment becomes double.)



Item Code	Item Name	Material	Finish	Torque Moment/piece	Door Thickness	Weight	Carton
170-025-804	LAD-L	ABS/	Zincing/Nickel Chrome	8.0 - 10.5 N·m (81.6 - 107.1 kgf·cm)	15 - 25	545 g	20 pcs
170-025-805	LAD-M	Polyacetal (POM)/		10.5 - 13.5 N·m (107.1 - 137.7 kgf·cm)		568 g	
170-025-806	LAD-H	Steel		13.5 - 16.0 N·m (137.7 - 163.2 kgf·cm)		571 g	

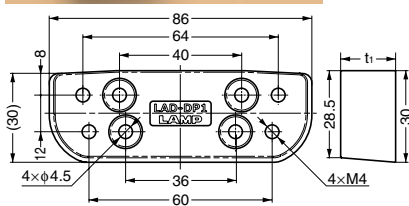
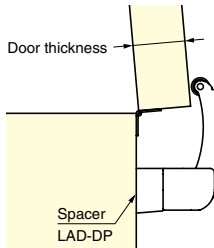
SPACER

For over 25 mm thickness door.



Features

For counter flaps with a thickness greater than 25mm.

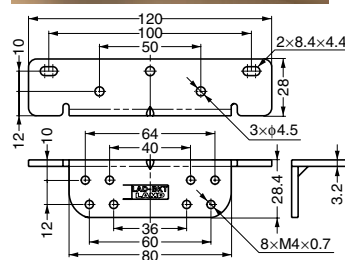
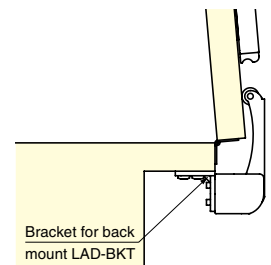
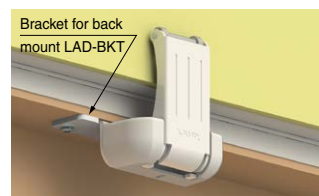


Item Code	Item Name	t ₁	Door Thickness	Material	Colour
170-028-234	LAD-DP1	18	25 - 35	Polyacetal	Grey
170-028-235	LAD-DP2	25	30 - 40	(POM)	

LAD-DP

BRACKET FOR BACK MOUNT

LAD-BKT



Item Code	Item Name	Material	Colour
170-028-236	LAD-BKT	Steel (SPCC)	Nickel

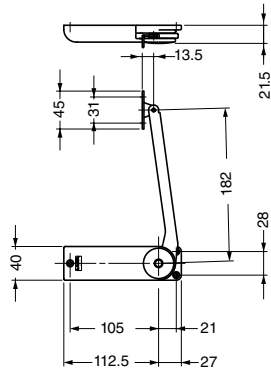
OVER THE TOP FLIPPER DOOR MECHANISM (W/ LIFT-ASSIST)



OV-EZ

LID SUPPORTS

OVER THE TOP FLIPPER DOOR MECHANISM (W/ LIFT-ASSIST)



Features

- For upward-opening flap doors.
- Provides lift-assist for light and easy lifting.
- Built-in damper provides soft closing near closing radius, preventing slamming.
- Flap door retracts above cabinet top when opened, greatly reducing dead space.

Remarks

1 pair of OV-EZ body and 2 pcs of C1315 rail (sold separately) are necessary for 1 cabinet.

Parts Included

Binding head tapping screw 3.5x16

Sold Separately

- C1315 rail (below)
- BS-2 clear bumper or angle stopper OV-EZ-SP (P.527) for noise prevention

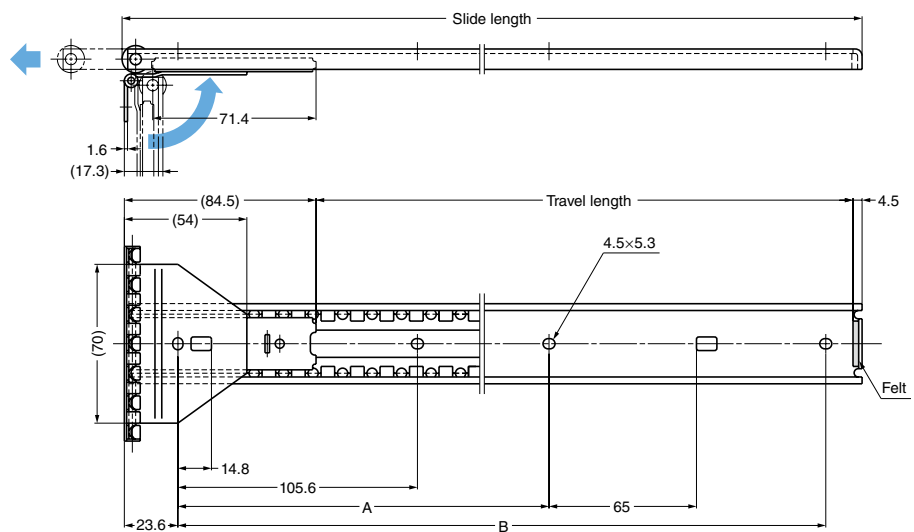
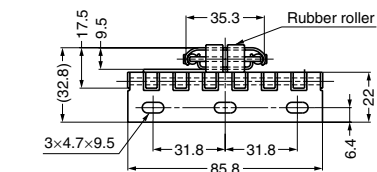


Body (1 pair)

Item Code	Item Name	Material	Finish/Colour	Door Weight* for Lift-assist Function	Door Weight* for Free-stop Function	Door Width	Door Height	Door Thickness	Weight	Carton
180-100-091	OV-EZ-3	ABS/Steel	Black/Nickel	2.5 - 4.0 kg	4.0 - 6.5 kg	600 - 1200	370 - 450	Min. 15	564 g	50 pairs
180-100-092	OV-EZ-5	ABS/Steel	Black/Nickel	3.5 - 5.0 kg	5.0 - 8.0 kg	600 - 1200	370 - 450	Min. 15	538 g	50 pairs
180-100-093	OV-EZ-7	ABS/Steel	Black/Nickel	4.5 - 6.0 kg	6.0 - 10.0 kg	600 - 1200	370 - 450	Min. 15	600 g	50 pairs
180-100-094	*OV-EZ-9	ABS/Steel	Black/Nickel	5.5 - 7.0 kg	7.0 - 11.5 kg	600 - 1200	370 - 450	Min. 15	-	50 pairs

*Made to order
*In case the door height is 380 mm.

C1315 Rail (Sold Separately)

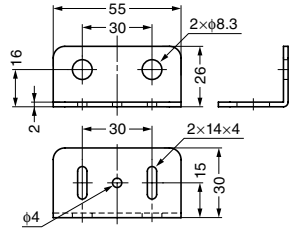


Item Code	Item Name	Material	Finish	Slide Length	Travel Length	A	B	Weight	Carton
190-113-849	C1315-14	Steel	Clear Zinc Chromate	350.6	262	186.7	310.5	320 g (1 pc)	20 pcs
190-113-850	C1315-18	Steel	Clear Zinc Chromate	450.6	362	286.7	410.5	390 g (1 pc)	20 pcs

2 pcs of C1315 rail are necessary for 1 cabinet.

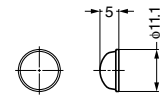


Angle Stopper (Sold Separately)



Item Code	Item Name	Material	Finish	Weight	Box	Carton
180-109-402	OV-EZ-SP	Steel	Black Chromate	47 g	70 pcs	420 pcs

BS Clear Bumper (Sold Separately)

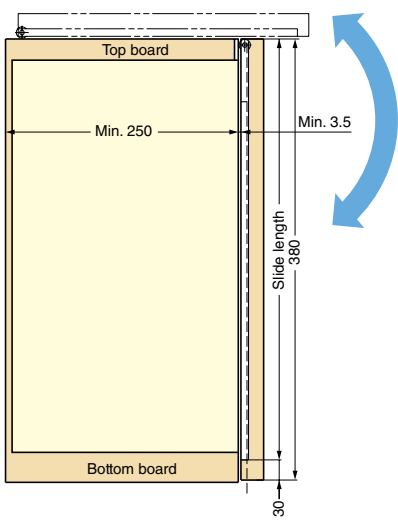


Item Code	Item Name	Material	Colour
210-030-568	BS-2	Polyurethane (PUR)	Clear

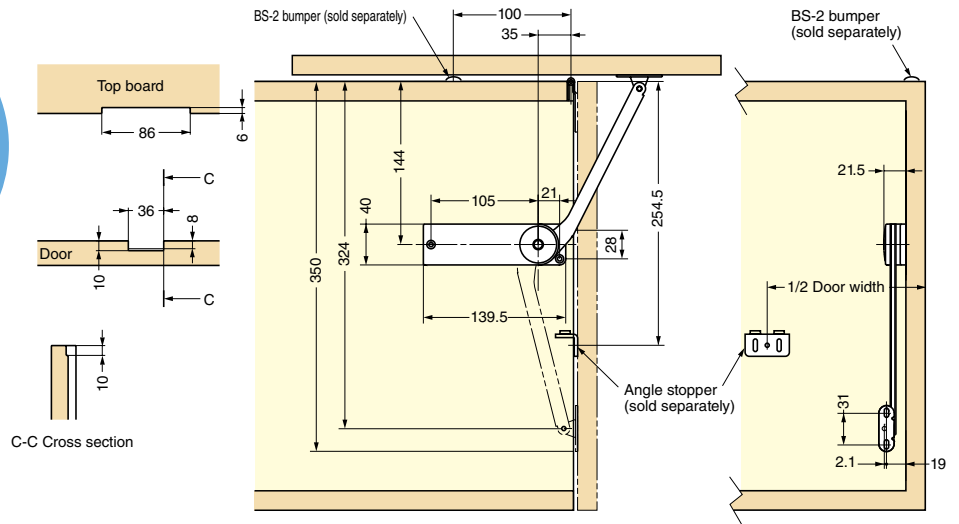
Sold per sheet (242 pcs).

Cut Out Dimensions

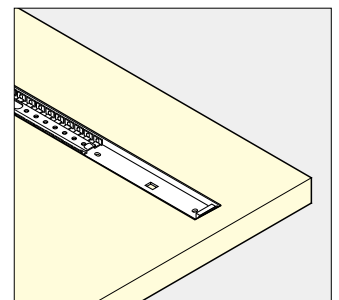
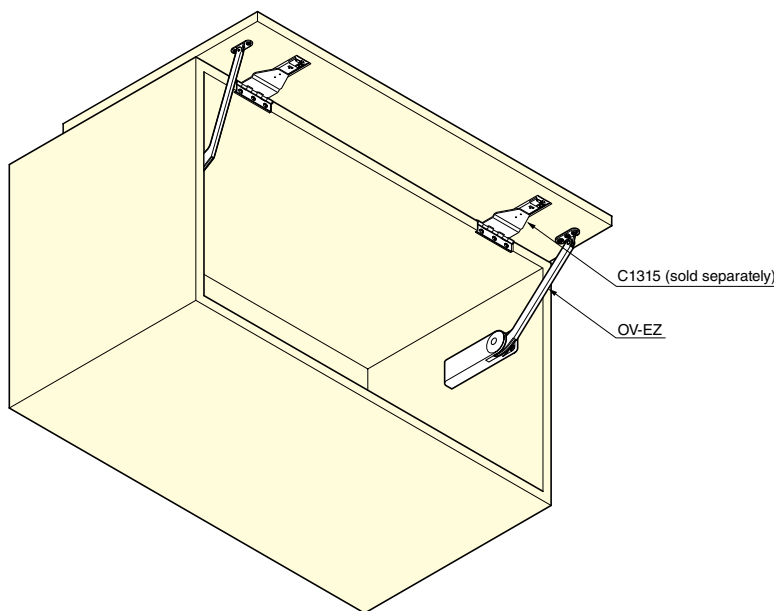
Cabinet cutaway view
(for door height: 380 mm)



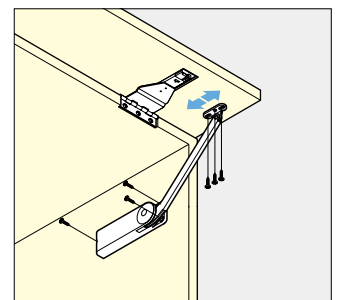
Cabinet front
(for travel length of C1315-14: 260 mm)



Installation



• Install C1315 rail.



• Mount the OV-EZ mechanism to the side walls of the cabinet.

OVER THE TOP FLIPPER DOOR MECHANISM (W/ SOFT CLOSING)



OVN

LID SUPPORTS

OVER THE TOP FLIPPER DOOR MECHANISM (W/ SOFT CLOSING)



Features

- For upward-opening flap doors.
- Built-in damper provides soft closing near closing radius, preventing slamming.
- Flap door retracts above cabinet top when opened, greatly reducing dead space.

Remarks

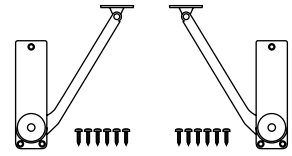
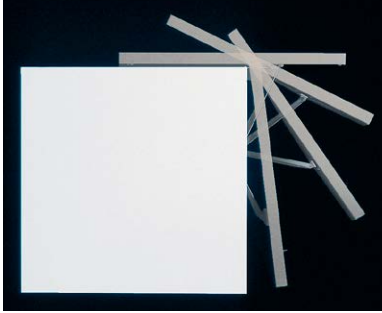
1 pair of OVN body and 2 pcs of C1315 rail (sold separately) are necessary for 1 cabinet.

Parts Included

Binding head tapping screw 3.5x16 (12 pcs)

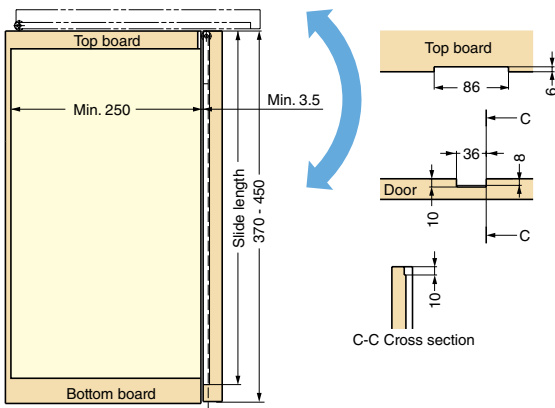
Sold Separately

C1315 rail (below)



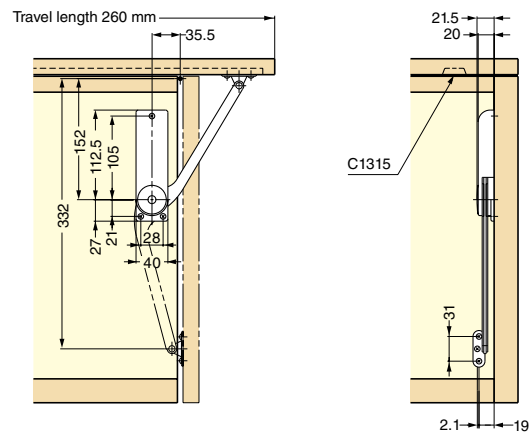
Cut Out Dimensions

Cabinet cutaway view



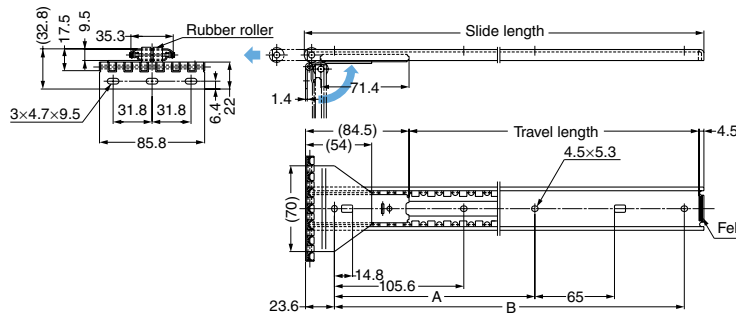
Cabinet front

(for travel length of C1315-14: 260 mm)



Item Code	Item Name	Material	Finish/Colour	Door Weight	Door Width	Door Height	Door Thickness	Weight	Carton
180-091-040	OVN-3	ABS/Steel	Black/Nickel	3 - 5 kg	Max. 1500	370 - 450	Min. 15	510 g	40 pairs
180-100-007	OVN-5	ABS/Steel	Black/Nickel	5 - 7 kg	Max. 1500	370 - 450	Min. 15	510 g	40 pairs

C1315 Rail (Sold Separately)



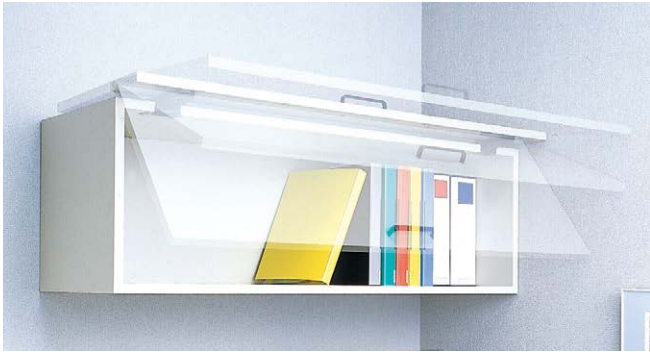
Item Code	Item Name	Material	Finish	Slide Length	Travel Length	A	B	Weight	Carton
190-113-849	C1315-14	Steel	Clear Zinc Chromate	350	260	186.7	310.5	320 g (1 pc)	20 pcs
190-113-850	C1315-18	Steel	Clear Zinc Chromate	450	360	286.7	410.5	390 g (1 pc)	20 pcs

2 pcs of C1315 rail are necessary for 1 cabinet.

OVER THE TOP FLIPPER DOOR MECHANISM (W/ SOFT CLOSING)



OV-1



Features

- For forward-opening flap doors.
- Built-in damper provides soft closing near closing radius, preventing slamming.
- When pulling the flap door out horizontally, will hold its position.
- Flap door retracts above cabinet top and OV-1 is installed into frame, almost completely eliminating dead space.
- Closing speed is adjustable.
- Position adjustable post-installation ($\pm 1.5\text{mm}$)
- Ball bearing type slide rail provides smooth movement in rail section.

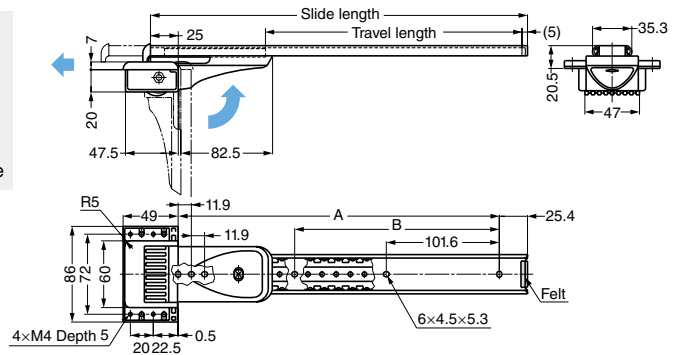
Remarks

2 pcs of OV1-MBP-BL-TRN-N2 (Main body) and 2 pcs of OV-SLP RN (Rail) are necessary for 1 cabinet.

Parts Included

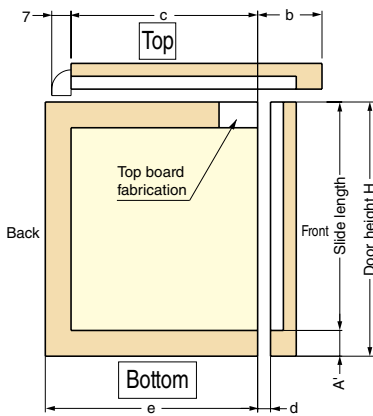
- Installation plate (4 pcs)
- Countersunk head screw M4x26 for wooden door (8 pcs)
- Binding head screw M4x8 for metal door (8 pcs)
- Binding head tapping screw 4x10 for rail installation (12 pcs)

Installation Plate

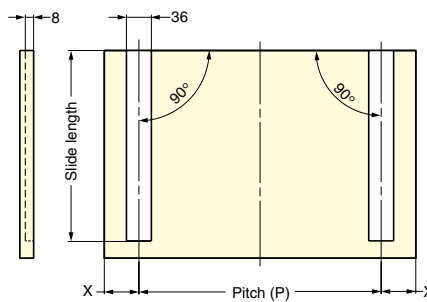


Cut Out Dimensions

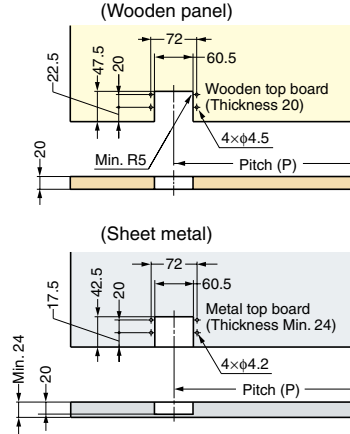
Cabinet dimensions



Door fabrication



Top board fabrication



	b	c	d	e
Wooden Top Board	A'+81.4	H-b	2.5	Min. c+7
Metal Top Board	A'+86.4	H-b	7.5	Min. c+7

	X
Inset Application	80
Overlay Application	Side Board Thickness+80

Main Body: 2 pcs are necessary for 1 cabinet.

Item Code	Item Name	Material	Colour	Door Weight	Door Width	Door Height	Door Thickness	Torque Moment/set	Weight	Carton
180-109-206	OV1-MBP-BL-TRN-N2	Steel & Plastic	Black	3 - 5 kg	700 - 1400	350 - 450	Min. 20	5.9 - 9.8 N·m	60 - 100 kgf·cm	282 g / 40 pcs

Rail: 2 pcs are necessary for 1 cabinet.

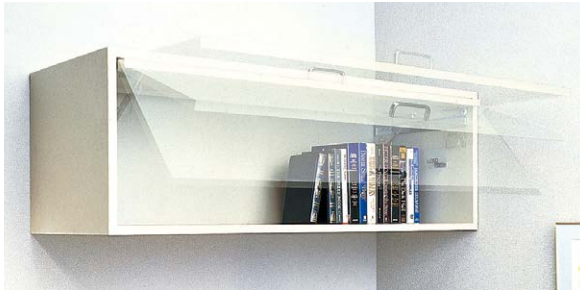
Item Code	Item Name	Material	Finish	Slide Length	Travel Length	A	B	Weight	Carton
190-119-672	OV-13 SLP RN	Steel	Clear Zinc Chromate	330.2	223.8	279.4	177.8	270 g	20 pcs
190-119-673	OV-14 SLP RN	Steel	Clear Zinc Chromate	355.6	249.2	304.8	203.2	287 g	20 pcs
190-119-674	OV-15 SLP RN	Steel	Clear Zinc Chromate	381	274.6	330.2	228.6	310 g	20 pcs
190-119-675	OV-16 SLP RN	Steel	Clear Zinc Chromate	406.4	300	355.6	254	322 g	20 pcs



INSET RECEDING DOOR MECHANISM (W/ SOFT CLOSING)



IF



	IF-102SL IF-102SR	IF-102W	IF-H102SL IF-H102SR	IF-H102W
Door Width	Max. 1200 mm	Max. 1200 mm	Max. 1200 mm	Max. 1200 mm
Door Thickness	15 - 20 mm	15 - 20 mm	18 - 30 mm	18 - 30 mm
Torque Moment	1.96 - 6.86 Nm (20 - 70 kgfcm)	4.9 - 13.7 Nm (50 - 140 kgfcm)	1.96 - 6.86 Nm (20 - 70 kgfcm)	4.9 - 13.7 Nm (50 - 140 kgfcm)

Features

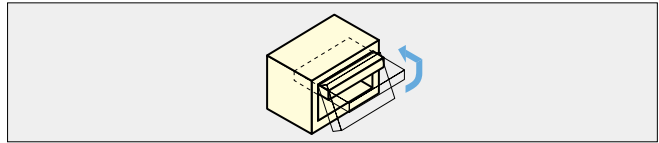
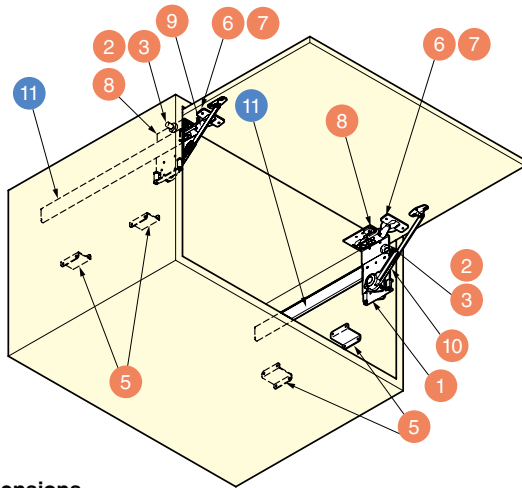
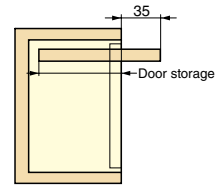
- For upward-opening flap doors.
- Built-in damper provides soft closing near closing radius, preventing slamming.
- Flap door retracts inside cabinet, allowing other cabinets to be installed on top.
- Successfully passed 30,000 open/close cycles in a private test.

Remarks

1 set of IF-102 (Parts set) and 2 pcs of AL-78 (Rails) are necessary for 1 cabinet.

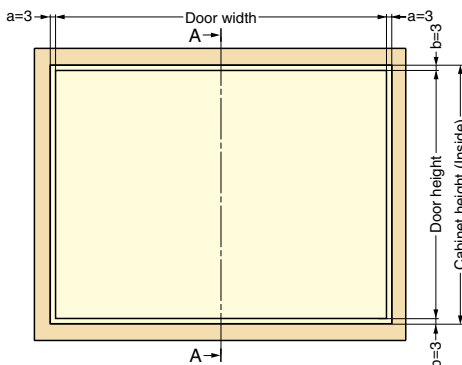
Door Storage and Recommended Door Height

Rail	Door Storage		Recommended Door Height	
	IF-102SL IF-102SR IF-102W	IF-H102SL IF-H102SR IF-H102W	IF-102SL IF-102SR IF-102W	IF-H102SL IF-H102SR IF-H102W
AL-78-14	263.7+Door Thickness mm	260.9+Door Thickness mm	298.7+Door Thickness mm	295.9+Door Thickness mm
AL-78-16	314.5+Door Thickness mm	311.7+Door Thickness mm	349.5+Door Thickness mm	346.7+Door Thickness mm
AL-78-19	390.7+Door Thickness mm	387.9+Door Thickness mm	425.7+Door Thickness mm	422.9+Door Thickness mm
AL-78-24	517.7+Door Thickness mm	514.9+Door Thickness mm	552.7+Door Thickness mm	549.9+Door Thickness mm

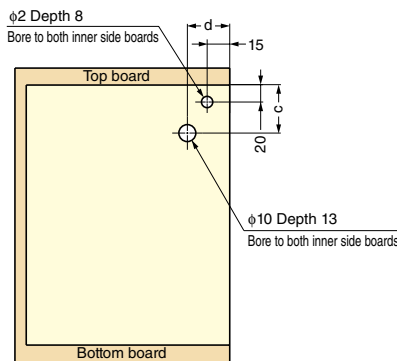


Cut Out Dimensions

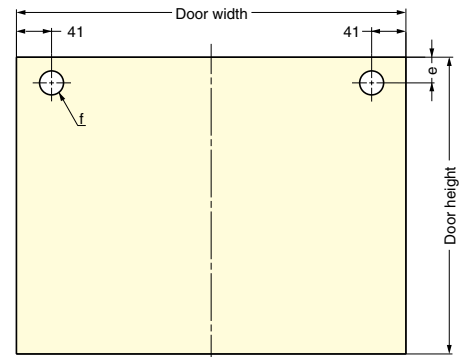
Cabinet front



Cabinet cutaway view (A-A)



Door cut out dimensions




Item Name	c	d	e	f	Weight
IF-102SL	37.5	9.5+Door Thickness	22.5	φ35 Depth 11	1200 g
IF-102SR	37.5	9.5+Door Thickness	22.5	φ35 Depth 11	1200 g
IF-102W	37.5	9.5+Door Thickness	22.5	φ35 Depth 11	1200 g
IF-H102SL	43.6	9.5+Door Thickness	25	φ40 Depth 15	1365 g
IF-H102SR	43.6	9.5+Door Thickness	25	φ40 Depth 15	1365 g
IF-H102W	43.6	9.5+Door Thickness	25	φ40 Depth 15	1365 g

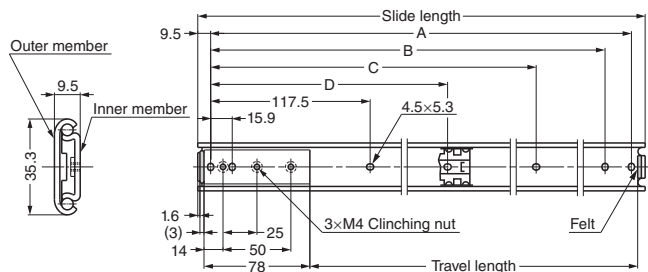


• Necessary Parts..... **Parts Set** + **Rails**

Parts Set			Necessary Parts 1 set for 1 cabinet.									
Item Code	Item Name	Parts Included										
		1 Bracket	2 Roller	3 Insert	4 Slider	5 Guard Plate	6 Hinge 230-C26/19T	7 Hinge H230-C26/26T	8 Mounting Plate 230-P4W-32T	9 Soft-down Stay NSDX-35L	10 Soft-down Stay NSDX-35R	
a	180-122-081	IF-102SL	2 pcs	2 pcs	2 pcs	2 pcs	4 pcs	2 pcs	-	2 pcs	1 pc	-
b	180-122-082	IF-102SR	2 pcs	2 pcs	2 pcs	2 pcs	4 pcs	2 pcs	-	2 pcs	-	1 pc
c	180-122-083	IF-102W	2 pcs	2 pcs	2 pcs	2 pcs	4 pcs	2 pcs	-	2 pcs	1 pc	1 pc
d	180-122-084	IF-H102SL	2 pcs	2 pcs	2 pcs	2 pcs	4 pcs	2 pcs	2 pcs	2 pcs	1 pc	-
e	180-122-085	IF-H102SR	2 pcs	2 pcs	2 pcs	2 pcs	4 pcs	2 pcs	2 pcs	2 pcs	-	1 pc
f	180-122-086	IF-H102W	2 pcs	2 pcs	2 pcs	2 pcs	4 pcs	2 pcs	2 pcs	2 pcs	1 pc	1 pc

* a e f: Please use only. (Do not use)
 * Choose either right/left-handed for the stay of IF-102S.

Rails			Necessary Parts 2 pcs are necessary for 1 cabinet.		
No.	Slide Length	Qty	Item Code / Item Name	Parts Name	Description
11	Slide Length 355.6 mm	1 pc	190-113-945	Rail	 <ul style="list-style-type: none"> Material Steel Finish Clear Zinc Chromate
			AL-78-14		
	Slide Length 406.4 mm	1 pc	190-113-942		
			AL-78-16		
	Slide Length 482.6 mm	1 pc	190-113-943		
			AL-78-19		
	Slide Length 609.6 mm	1 pc	190-113-944		
			AL-78-24		



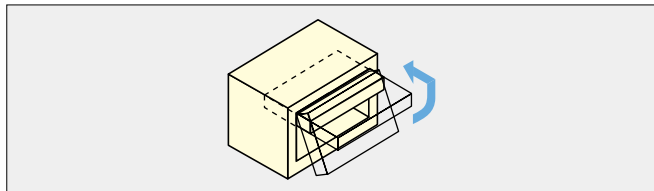
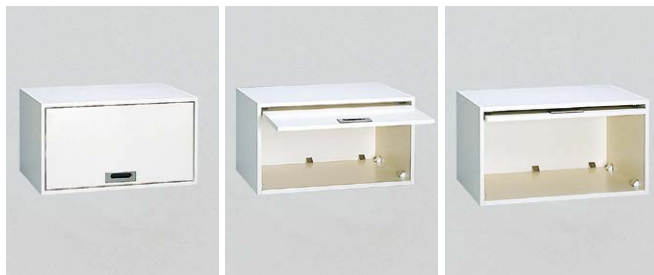
Item Name	Slide Length	Travel Length	A	B	C	D	Weight	Carton
AL-78-14	355.6	267.6	336.6	320.7	219.1	-	274 g	20 pcs
AL-78-16	406.4	318.4	387.4	371.5	269.9	-	308 g	20 pcs
AL-78-19	482.6	394.6	463.6	447.7	346.1	231.8	357 g	40 pcs
AL-78-24	609.6	521.6	590.6	574.7	473.1	295.3	450 g	40 pcs

INSET RECEDING DOOR MECHANISM



ALT-3H

LID SUPPORTS



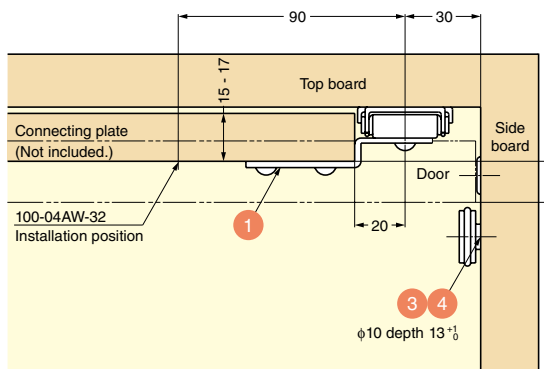
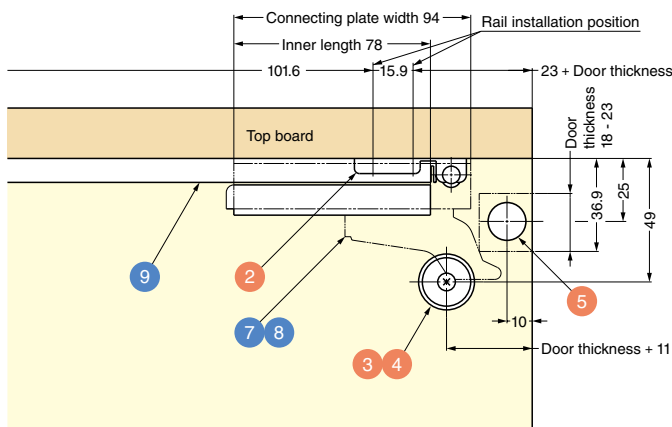
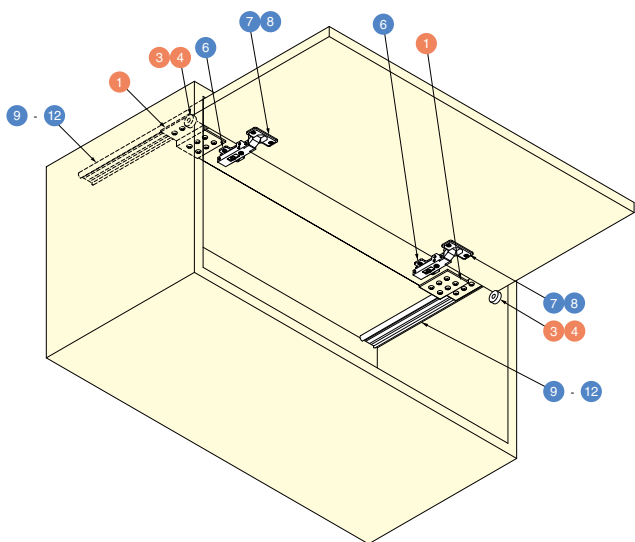
Door Width	Max. 870 mm
Door Height	Max. 600 mm
Door Thickness	18 - 23 mm
Door Weight	Max. 5 kg

Features

- For upward-opening flap doors.
- When open, flap door recedes horizontally inside cabinet, significantly reducing dead space.
- Easy to install combination of concealed hinge and slide rail.

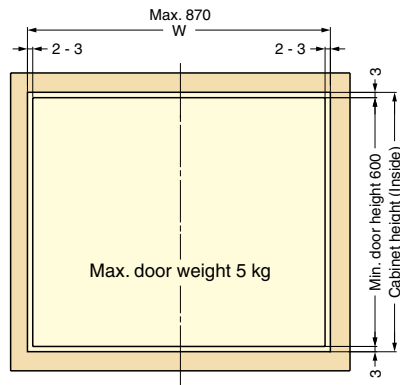
Item Name	Door Storage	Cabinet Depth
AL-78-14	266+Door Thickness mm	Min. 371
AL-78-16	317+Door Thickness mm	Min. 422
AL-78-19	393+Door Thickness mm	Min. 498
AL-78-24	520+Door Thickness mm	Min. 625

Installation

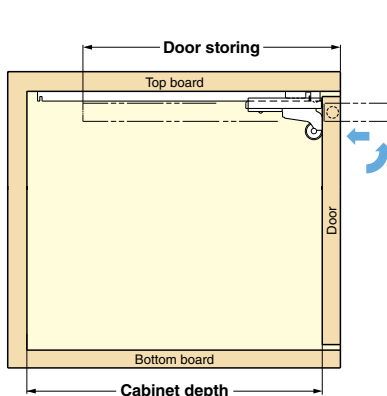


Cut Out Dimensions

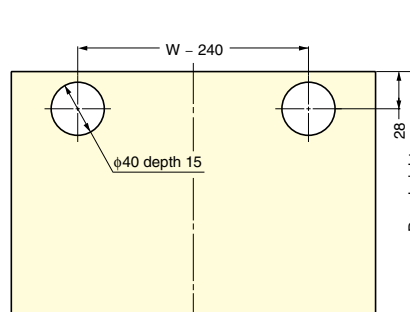
Cabinet front



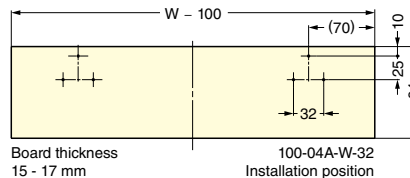
Cabinet cutaway view



Door cut out dimensions



Connecting plate (Wooden)



INSET RECEDING DOOR MECHANISM



LID STAY

S-24, S-27, S-25

LID SUPPORTS

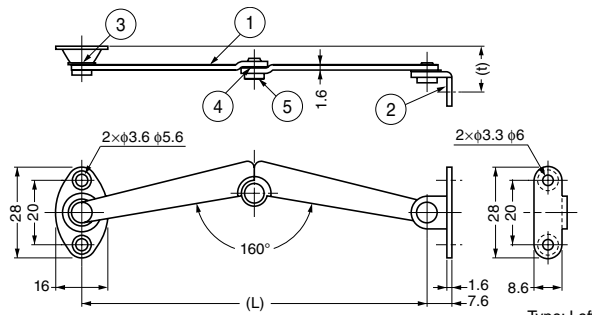
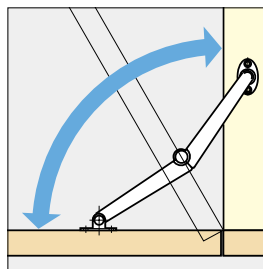
LID STAY



Type: Right

No.	Part Name	Material	Finish
①	Body	Steel	Chrome
②	Bracket	Steel	Chrome
③	Washer	Steel	Chrome
④	Washer	Polyamide (PA)	Natural
⑤	Axis	Brass	Chrome

Installation (Left Side)



Type: Left

Item Code	Item Name	Type	L	t	Tension Force	Weight	Box	Carton
180-100-144	S-24R	Right	105.5	13.6	326 N (33.3 kgf)	21 g	100 pcs	1000 pcs
180-100-145	S-24L	Left	105.5	13.6		21 g	100 pcs	1000 pcs
180-100-148	S-27R	Right	133	13.6	325 N (33.2 kgf)	32 g	60 pcs	600 pcs
180-100-149	S-27L	Left	133	13.4		32 g	60 pcs	600 pcs
180-100-146	S-25R	Right	163	13.6	287 N (29.3 kgf)	35 g	60 pcs	600 pcs
180-100-147	S-25L	Left	163	13.4		35 g	60 pcs	600 pcs

LID STAY

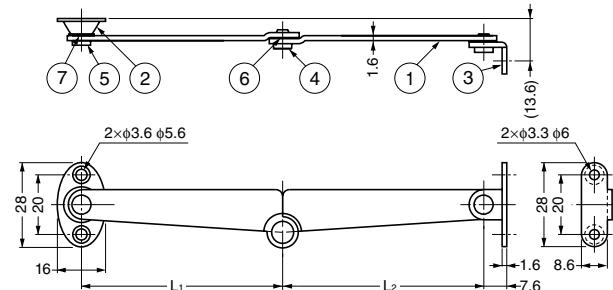
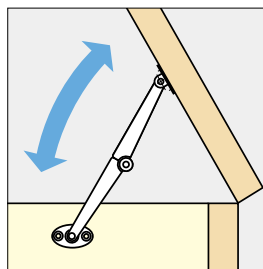
S-6, S-16



Type: Left

No.	Part Name	Material	Finish
①	Body	Steel	Chrome
②	Mounting Plate	Steel	Chrome
③	Bracket	Steel	Chrome
④	Center Axis	Brass	Chrome
⑤	Axis	Brass	Chrome
⑥	Washer A	Polyamide (PA)	Natural
⑦	Washer B	Polyamide (PA)	Natural

Installation (Left Side)



Type: Left

Item Code	Item Name	Type	L ₁	L ₂	Tension Force	Weight	Box	Carton
180-100-132	S-6R	Right	53	53	318 N (32.4 kgf)	20 g	100 pcs	1000 pcs
180-100-133	S-6L	Left	53	53		20 g	100 pcs	1000 pcs
180-100-134	S-16R	Right	67	67	336 N (34.3 kgf)	31 g	60 pcs	600 pcs
180-100-135	S-16L	Left	67	67		31 g	60 pcs	600 pcs

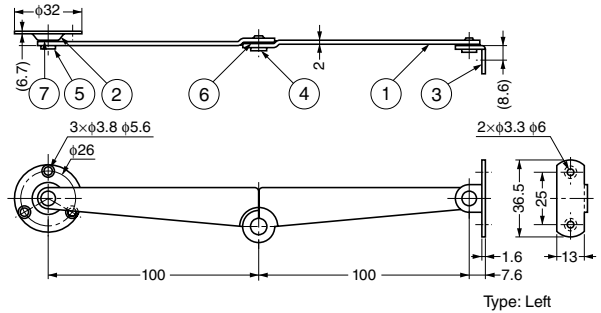
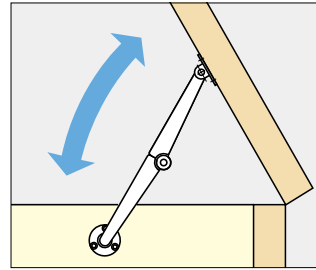
LID STAY

S-19



Type: Left

Installation (Left Side)



No.	Part Name	Material	Finish
①	Body	Steel	Chrome
②	Bracket	Steel	Chrome
③	Bracket	Steel	Chrome
④	Center Axis	Brass	Chrome
⑤	Axis	Brass	Chrome
⑥	Washer A	Polyamide (PA)	-
⑦	Washer B	Polyamide (PA)	-

Item Code	Item Name	Type	Tension Force	Weight	Box	Carton
180-100-136	S-19R	Right	425 N (43.4 kgf)	66 g	50 pcs	300 pcs
180-100-137	S-19L	Left		66 g	50 pcs	300 pcs

LID STAY (W/ CATCH)

S-20

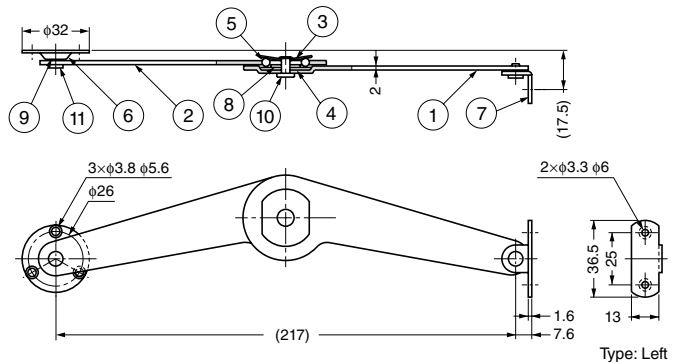
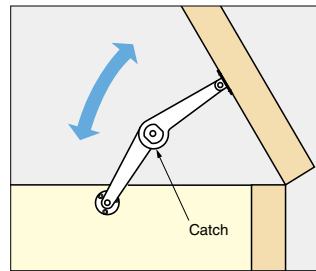


Type: Left

Features

With catch.

Installation (Left Side)



No.	Part Name	Material	Finish
①	Body A	Steel	Chrome
②	Body B	Steel	Chrome
③	Spring A	Steel	Chrome
④	Spring B	Steel	-
⑤	Ball	Steel	-
⑥	Bracket	Steel	Chrome
⑦	Bracket	Steel	Chrome
⑧	Washer	Steel	Nickel
⑨	Washer	Polyamide (PA)	-
⑩	Center Axis	Steel	Chrome
⑪	Axis	Brass	Chrome

Item Code	Item Name	Type	Tension Force	Weight	Box	Carton
180-100-138	S-20R	Right	410 N (41.8 kgf)	122 g	40 pcs	160 pcs
180-100-139	S-20L	Left		122 g	40 pcs	160 pcs

LID STAY (W/ CATCH)

S-21



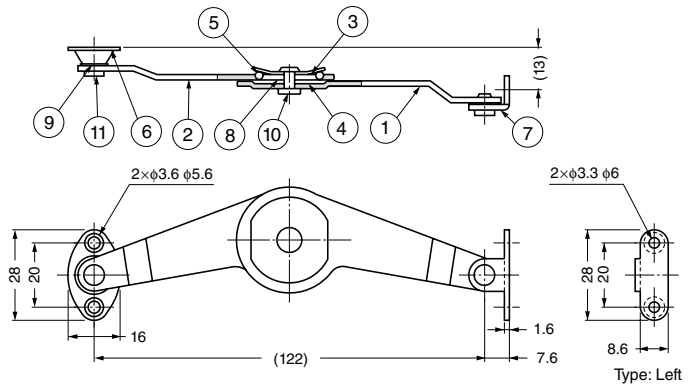
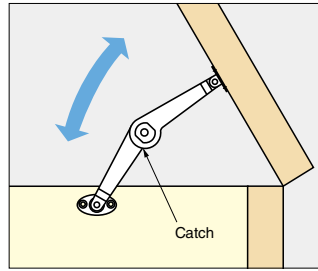
Type: Left

No.	Part Name	Material	Finish
①	Body A	Steel	Chrome
②	Body B	Steel	Chrome
③	Spring A	Steel	-
④	Spring B	Steel	-
⑤	Balls	Steel	-
⑥	Mounting Plate	Steel	Chrome
⑦	Bracket	Steel	Chrome
⑧	Washer	Steel	Yellow Zinc Chromate
⑨	Washer	Polyamide (PA)	Natural
⑩	Center Axis	Brass	Chrome
⑪	Axis	Brass	Chrome

Features

With catch.

Installation (Left Side)



Item Code	Item Name	Type	Tension Force	Weight	Box	Carton
180-100-140	S-21R	Right	309 N (31.5 kgf)	49 g	50 pcs	500 pcs
180-100-141	S-21L	Left		49 g	50 pcs	500 pcs

LID STAY (W/ CATCH)

S-23



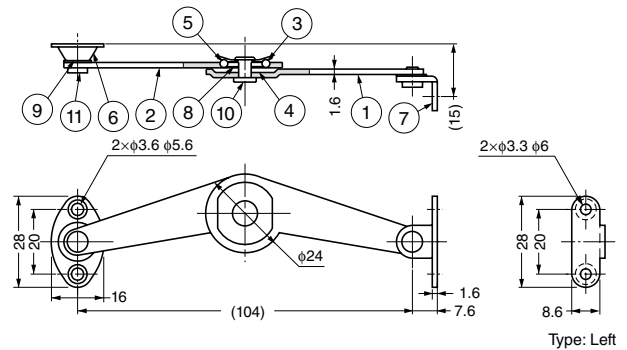
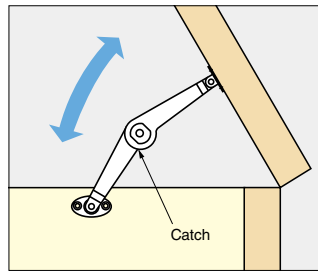
Type: Left

No.	Part Name	Material	Finish
①	Body A	Steel	Chrome
②	Body B	Steel	Chrome
③	Spring A	Stainless Steel (SUS301)	-
④	Spring B	Stainless Steel (SUS301)	-
⑤	Balls	Steel	-
⑥	Mounting Plate	Steel	Chrome
⑦	Bracket	Steel	Chrome
⑧	Washer	Steel	Yellow Zinc Chromate
⑨	Washer	Polyamide (PA)	-
⑩	Center Axis	Brass	Chrome
⑪	Axis	Brass	Chrome

Features

With catch.

Installation (Left Side)



Item Code	Item Name	Type	Tension Force	Weight	Box	Carton
180-100-142	S-23R	Right	298 N (30.4 kgf)	33 g	50 pcs	500 pcs
180-100-143	S-23L	Left		33 g	50 pcs	500 pcs

LID STAY

L=R

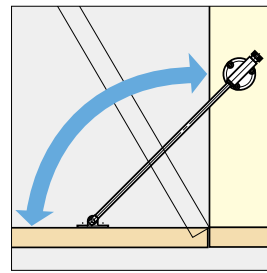
S-35



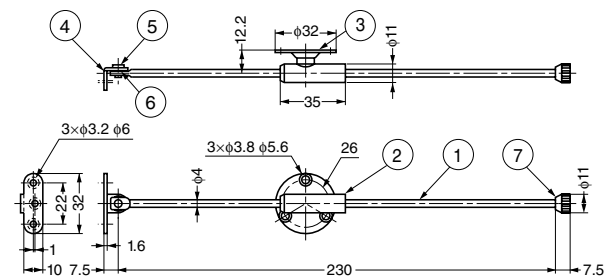
Features

Non-handed.

Installation



No.	Part Name	Material	Finish/Colour
①	Arm	Steel	Chrome
②	Arm Guide	Polyamide (PA)	Brown
③	Bracket	Steel	Chrome
④	Bracket	Steel	Chrome
⑤	Axis	Brass	Chrome
⑥	N Washer	Polyamide (PA)	-
⑦	Nut	Brass	Nickel



Item Code	Item Name	Weight	Box	Carton
180-100-151	S-35	44 g	60 pcs	300 pcs

LID SUPPORTS

LID STAY

LID STAY

L=R

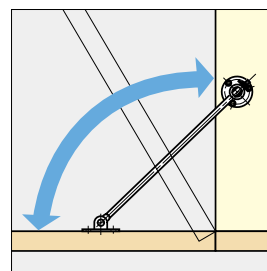
S-34



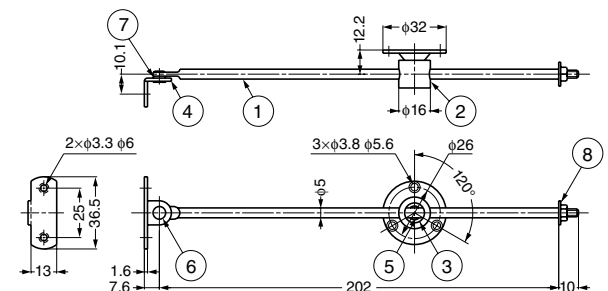
Features

Non-handed.

Installation



No.	Part Name	Material	Finish/Colour
①	Arm	Steel	Chrome
②	Arm Guide	Polyamide (PA)	Natural
③	Bracket	Steel	Chrome
④	Bracket	Steel	Chrome
⑤	Axis A	Steel	Yellow Zinc Chromate
⑥	Axis B	Brass	Chrome
⑦	Washer	Polyamide (PA)	-
⑧	Flanged Hexagon Nut	Steel	Nickel



Item Code	Item Name	Weight	Box	Carton
180-100-150	S-34	54 g	60 pcs	300 pcs

LID STAY

L=R BF-2

LID SUPPORTS

LID STAY



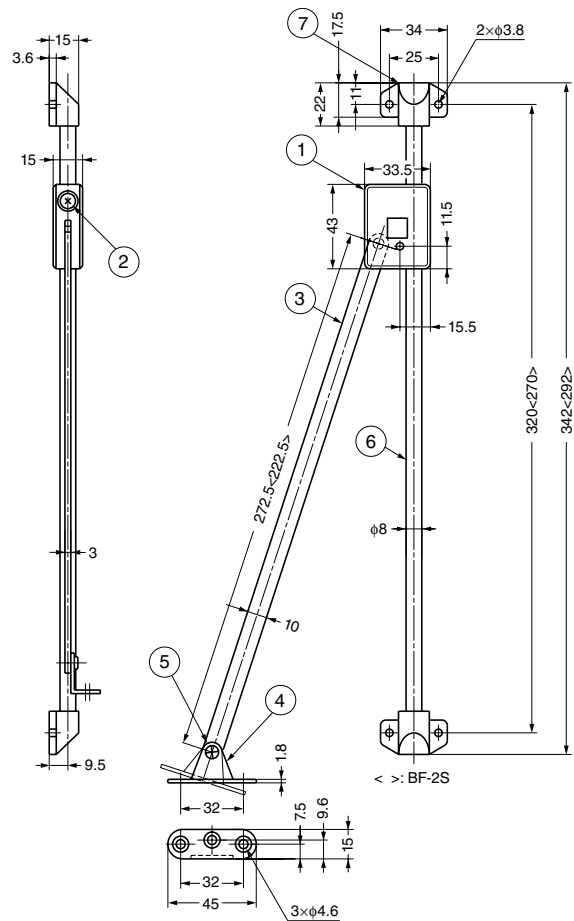
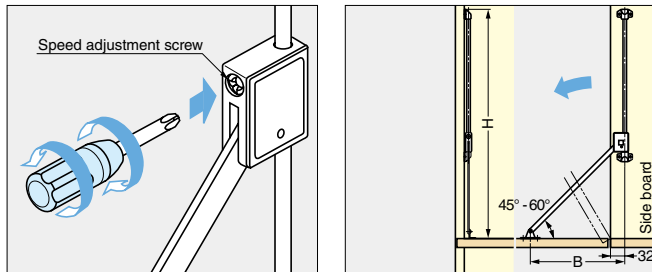
Features

- Great solution for writing desks.
- Depending on use or door size, opening speed can be adjusted.
- Non-handed.

Remarks

- Door size: Max. width 900 mm x height 400 mm (Max. weight 6kg).
- Please use only a single stay per door.
- In case items are placed on the door or maintenance is being performed on the door, further reinforcement besides the stay is required.

Speed Adjustment



No.	Part Name	Material	Finish/Colour
①	Brake	Polyacetal (POM)	White/Black
②	Speed Adjustment Screw	Steel	Chrome
③	Stay	Steel	Chrome
④	Bracket	Steel	Chrome
⑤	Screw	Steel	Chrome
⑥	Rod	Steel	Chrome
⑦	Bracket	Polyamide (PA)	White/Black

Item Code	Item Name	Colour	H		B		Weight	Box	Carton
			Max. (60°)	Min. (45°)	Max. (60°)	Min. (45°)			
180-100-010	BF-2SW	White	459	424	130	177	195 g	10 pcs	100 pcs
180-100-011	BF-2SB	Black	459	424	130	177	195 g	10 pcs	100 pcs
180-100-012	BF-2LW	White	552	509	156	212	225 g	10 pcs	100 pcs
180-100-013	BF-2LB	Black	552	509	156	212	225 g	10 pcs	100 pcs

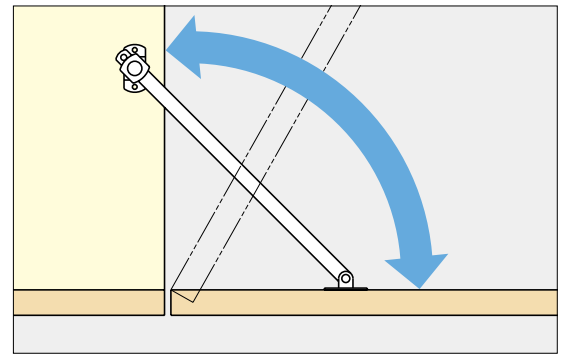
LID STAY



HS

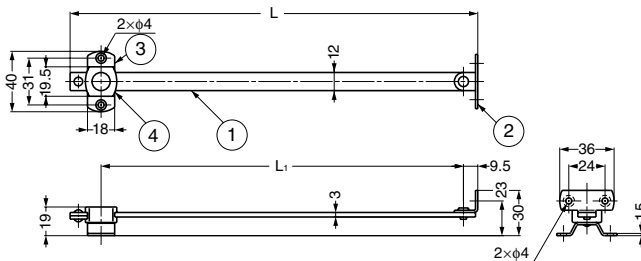


Installation



LID SUPPORTS

LID STAY



No.	Part Name	Material	Finish/Colour
①	Arm	Stainless Steel (SUS304)	Satin
②	Bracket	Stainless Steel (SUS304)	Satin
③	Mounting Plate	Stainless Steel (SUS304)	Satin
④	Bracket	Polyamide (PA)	White

Item Code	Item Name	L	L ₁	Weight	Box	Carton
180-100-020	HS-180	210	180	80 g	20 pcs	220 pcs
180-100-021	HS-210	240	210	90 g	20 pcs	220 pcs
180-100-022	HS-240	270	240	100 g	20 pcs	220 pcs

LID STAY

KLS



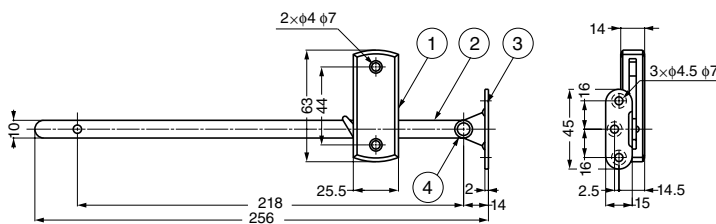
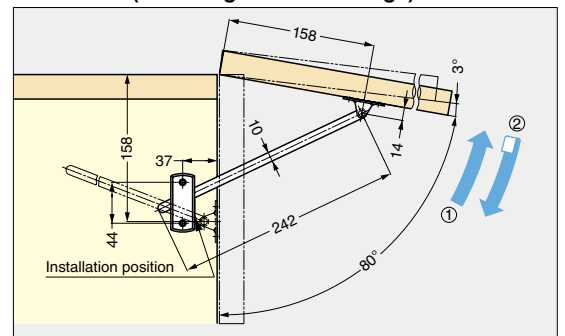
Features

- With stopper.
- Lift up the door to release the stopper.

Remarks

- Right side installation only.
- Max. door height is 300 mm.

Installation (With Single Knuckle Hinge)



No.	Part Name	Material	Finish/Colour
①	Body	Polyamide (PA)	White
②	Arm	Steel	Nickel
③	Bracket	Steel	Nickel
④	Spring	Steel	-

Item Code	Item Name	Door Weight	Weight	Box	Carton
180-100-052	KLS	Max. 8 kg	85 g	20 pcs	200 pcs

ULTRA MINI LID STAY



L-100S, L-140S



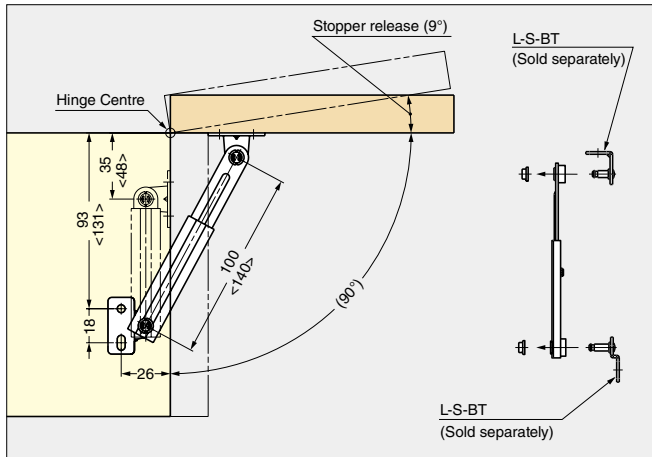
Features

- Door flap locks in opened position. To release, push door flap into fully opened position.
- When closed, the extendible section of the arm is stored inside the body, allowing the cabinet interior to be used effectively.
- Small, compact profile can be installed in narrow spaces
- Can be used with smaller door flaps including those used on smaller pieces of equipment.

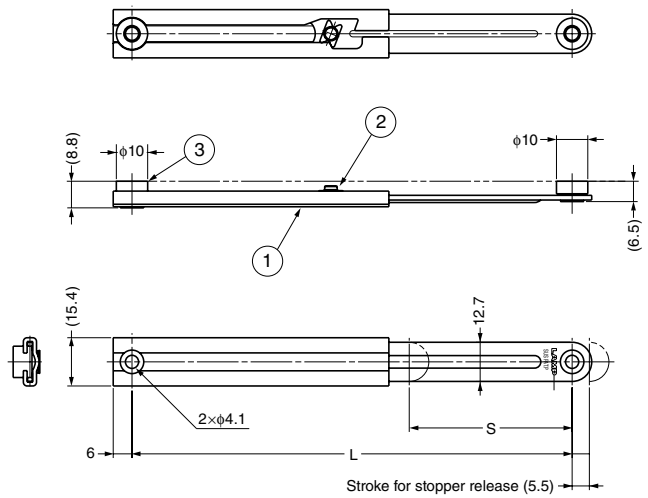
Sold Separately

Mounting bracket L-S-BT (below)

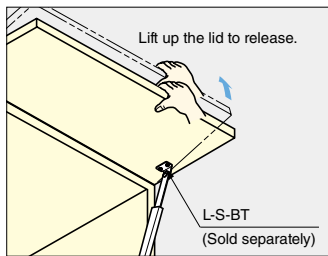
Installation



< >: L-140S



Stopper Release

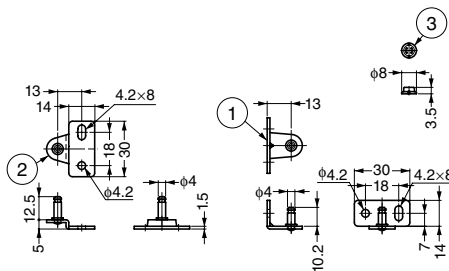


No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Polished
②	Washer	Polyamide (PA)	-
③	Case Bracket	Stainless Steel (SUS304)	-

Item Code	Item Name	Load Capacity	L	S	Weight	Box	Carton
180-109-118	L-100S	58.8 N/pc 6 kgf/pc	100	32	31 g	30 pcs	300 pcs
180-100-105	L-140S	58.8 N/pc 6 kgf/pc	140	52	38 g	30 pcs	300 pcs

MOUNTING BRACKET

L-S-BT



Features

- Optional brackets for L-100S and L-140S stays (above).
- Brackets for arm and case sold as set.

Remarks

Do not re-use the bracket. Plastic bushing may become loose once taken off from stay.

No.	Part Name	Material	Finish/Colour
①	Arm Bracket	Stainless Steel (SUS304)	Polished
②	Case Bracket	Stainless Steel (SUS304)	Polished
③	Cap	Polyacetal (POM)	White

Item Code	Item Name	Weight	Box	Carton
180-100-620	L-S-BT	17 g	40 sets	400 sets



LOW PROFILE LID STAY

TEST METHOD 16

L=R

STAINLESS 304 STEEL

L-200P



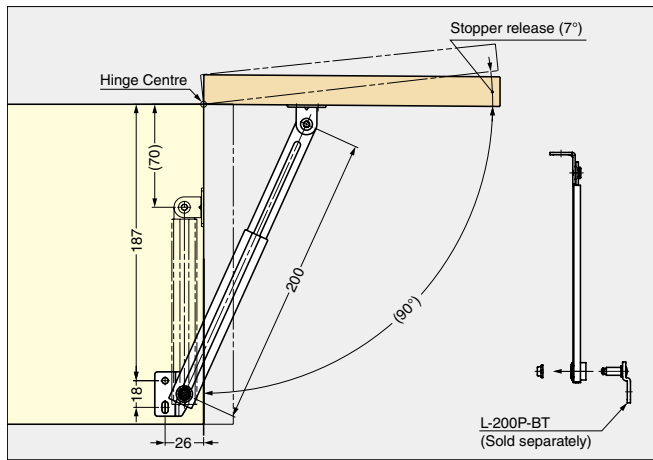
Features

- Door flap locks in opened position. To release, push door flap into fully opened position.
- When closed, the extendible section of the arm is stored inside the body, allowing the cabinet interior to be used effectively.
- Small, compact profile can be installed in narrow spaces.
- Can be used with door flaps like those used on different pieces of equipment.

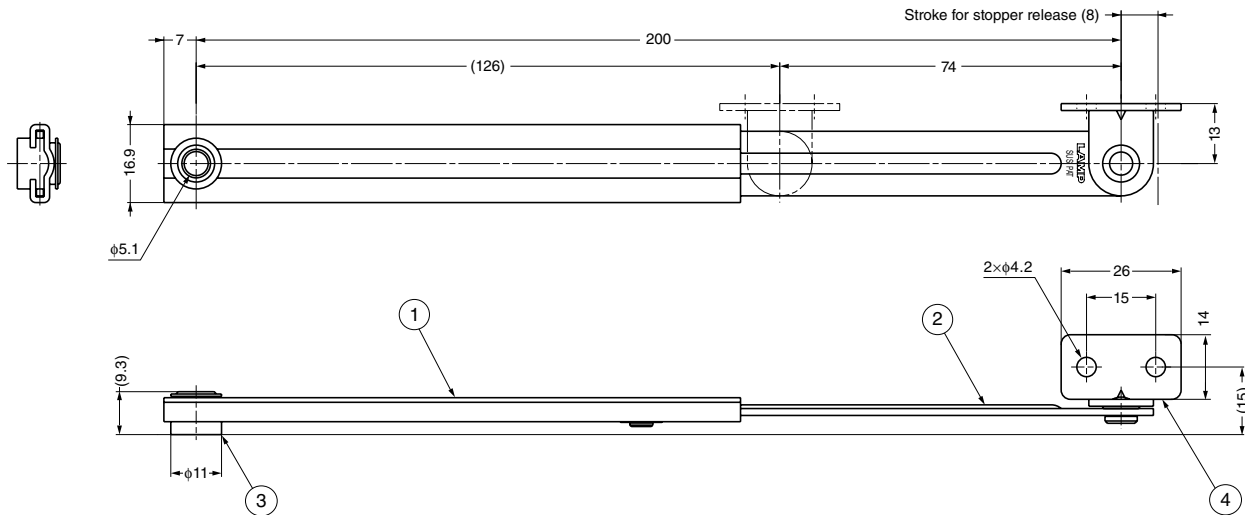
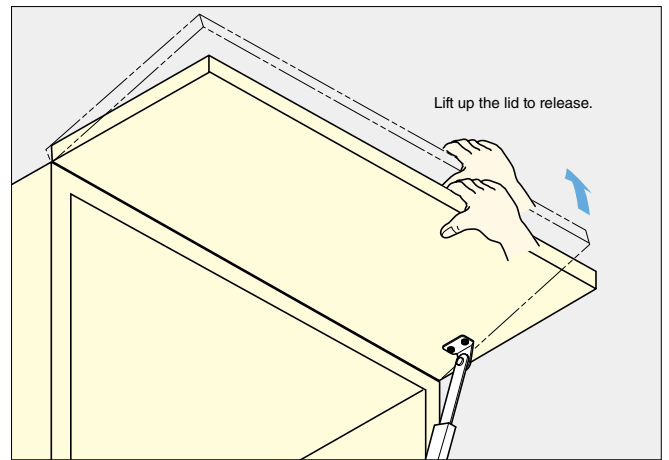
Sold Separately

Mounting bracket L-200P-BT (P.543)

Installation



Stopper Release



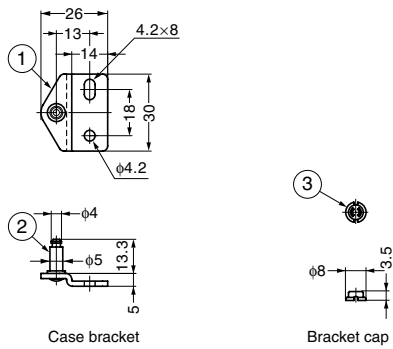
No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Polished
②	Arm	Stainless Steel (SUS304)	Polished
③	Case Bracket	Stainless Steel (SUS304)	-
④	Arm Bracket	Stainless Steel (SUS304)	Polished

Item Code	Item Name	Load Capacity	Weight	Box	Carton
180-100-104	L-200P	147 N/pc 15 kgf/pc	68 g	30 pcs	300 pcs



BRACKET

L-200P-BT



Features

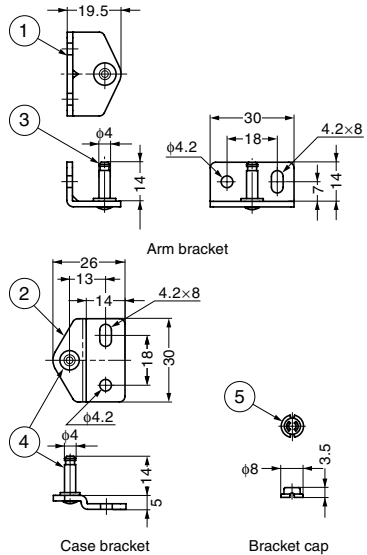
- Bracket for L-200P.
- One-touch installation with the bracket cap.
- See P.541 for installation details.

Item Code	Item Name	Weight	Box	Carton
180-028-721	L-200P-BT	14 g	30 pcs	300 pcs

No.	Part Name	Material	Finish/Colour
①	Case Bracket	Stainless Steel (SUS304)	Polished
②	Axis of Case Bracket	Stainless Steel (SUS303)	Plain
③	Fix Cap for Bracket	Polyacetal (POM)	Black

BRACKET

L-SL140-BT



Features

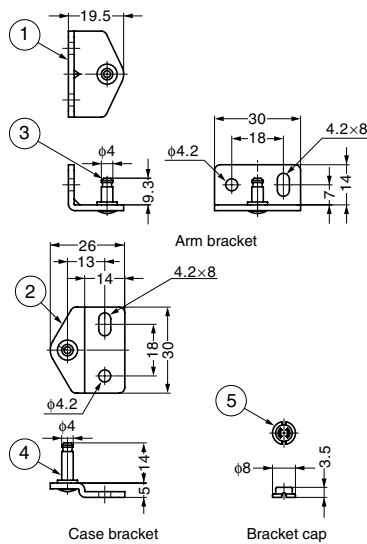
- Bracket for L-SL140.
- One-touch installation with the bracket cap.
- See P.542 for installation details.

Item Code	Item Name	Weight	Box	Carton
180-028-719	L-SL140-BT	28 g	30 pcs	300 pcs

No.	Part Name	Material	Finish/Colour
①	Arm Bracket	Stainless Steel (SUS304)	Polished
②	Case Bracket	Stainless Steel (SUS304)	Polished
③	Axis of Arm Bracket	Stainless Steel (SUS303)	Plain
④	Axis of Case Bracket	Stainless Steel (SUS303)	Plain
⑤	Fix Cap for Bracket	Polyacetal (POM)	Black

BRACKET

L-FS140-BT



Features

- Bracket for L-FS140.
- One-touch installation with the bracket cap.
- See P.542 for installation details.

Item Code	Item Name	Weight	Box	Carton
180-028-720	L-FS140-BT	27 g	40 pcs	400 pcs

No.	Part Name	Material	Finish/Colour
①	Arm Bracket	Stainless Steel (SUS304)	Polished
②	Case Bracket	Stainless Steel (SUS304)	Polished
③	Axis of Arm Bracket	Stainless Steel (SUS303)	Plain
④	Axis of Case Bracket	Stainless Steel (SUS303)	Plain
⑤	Fix Cap for Bracket	Polyacetal (POM)	Black

LID STAY

TEST METHOD 16

L=R

STAINLESS 304 STEEL

L-195, L-270

LID SUPPORTS

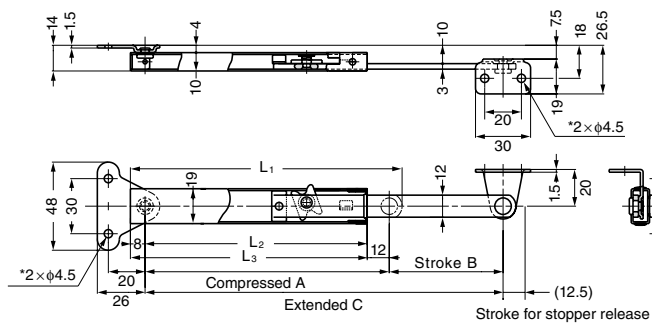
LID STAY



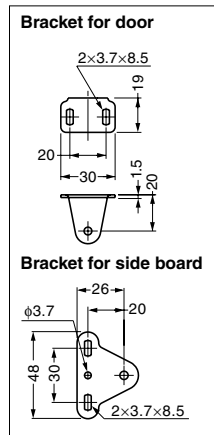
Features

- Door flap locks in opened position. To release, push door flap into fully opened position.
- When closed, the extendible section of the arm is stored inside the body, allowing the cabinet interior to be used effectively.
- Only one stay is required per door flap.
- Non-handed.

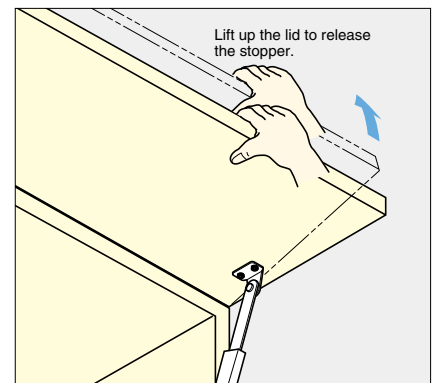
L-195B/L-270B



L-195A/L-270A



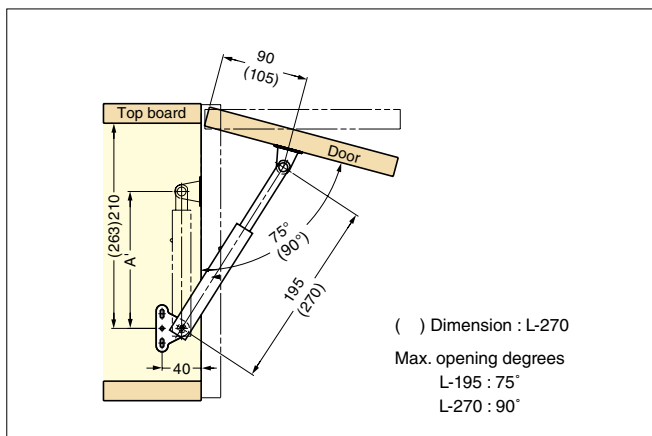
Stopper Release



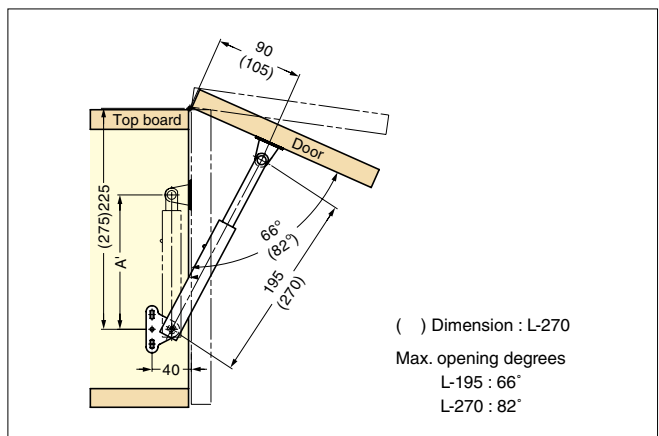
*Type A and B are different in hole shape.

Item Code	Item Name	Material	Finish	L ₁	L ₂	L ₃	A	B	C	Approx. Door Height	Load Capacity	Weight	Box	Carton
180-100-114	L-195A	Stainless Steel (SUS304)	Satin	148	121	129	133	62	195	250 - 350	147 N/pc (15 kgf/pc)	120 g	10 pcs	100 pcs
180-100-115	L-195B	Stainless Steel (SUS304)	Satin	148	121	129	133	62	195	250 - 350		125 g	10 pcs	100 pcs
180-100-118	L-195A-TI	Titanium	Satin	148	121	129	133	62	195	250 - 350		71 g	10 pcs	100 pcs
180-100-116	L-270A	Stainless Steel (SUS304)	Satin	185	158	166	170	100	270	320 - 500		150 g	10 pcs	100 pcs
180-100-117	L-270B	Stainless Steel (SUS304)	Satin	185	158	166	170	100	270	320 - 500		183 g	10 pcs	100 pcs
180-100-119	L-270A-TI	Titanium	Satin	185	158	166	170	100	270	320 - 500		87 g	10 pcs	100 pcs

With Concealed Hinge



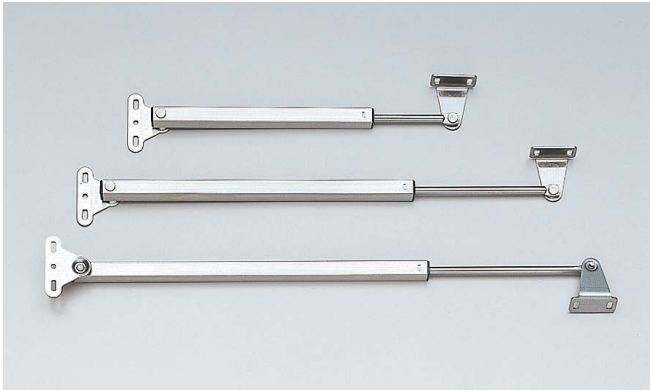
With Single Knuckle Hinge



LID STAY



LK-222, LK-335, LK-380

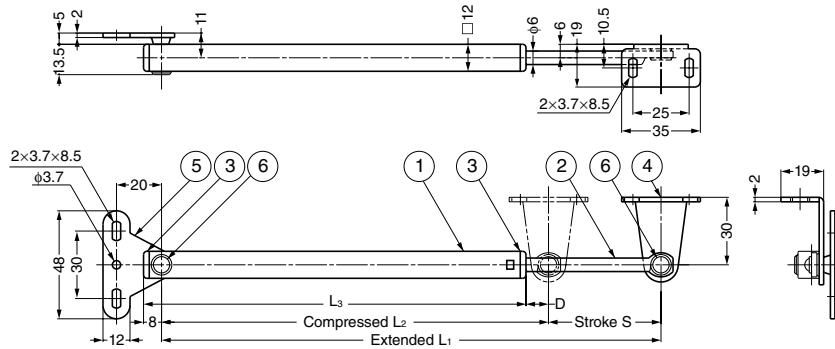


Features

- Spring mechanism makes door flap easier to lift.
- Holds door flap in open position. Does not require a catch.
- When closed, the extendible section of the arm is stored inside the body, allowing the cabinet interior to be used effectively.
- Non-handed.

Remarks

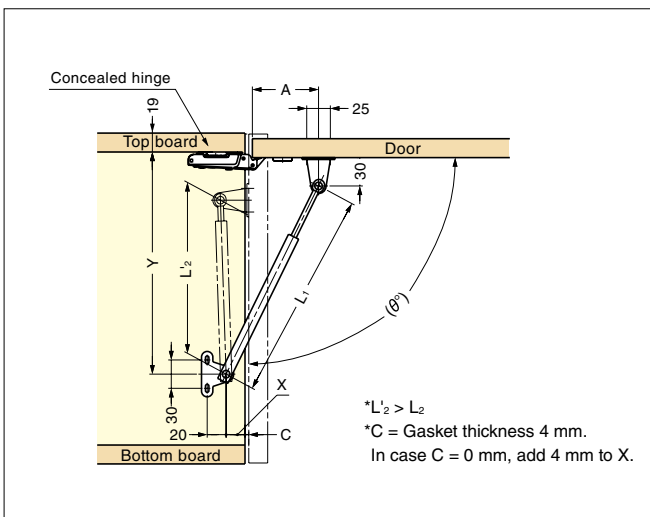
Please use in pairs.



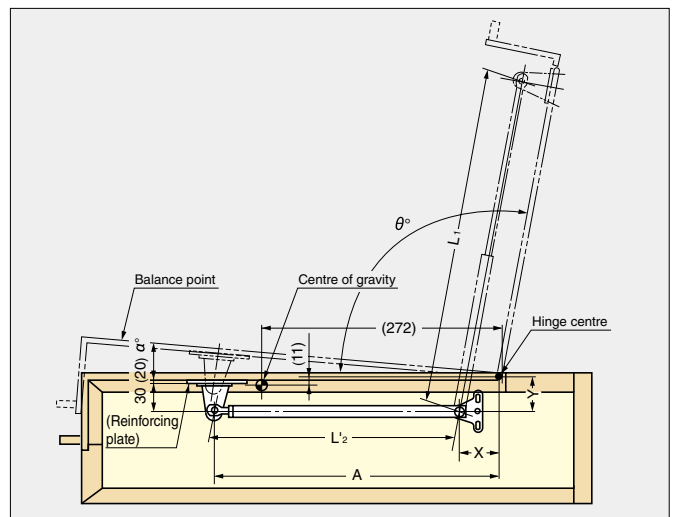
No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Satin
②	Arm	Stainless Steel (SUS304)	Polished
③	Cover	Polyamide (PA)	Black
④	Arm Bracket	Stainless Steel (SUS304)	Satin
⑤	Case Bracket	Stainless Steel (SUS304)	Satin
⑥	Shaft	Stainless Steel (SUS303)	-
-	Spring	Piano Wire	Yellow Zinc Chromate

Item Code	Item Name	L ₁	L ₂	L ₃	S	D	Spring Tension		Weight	Box	Carton
							Extended Force	Compressed Force			
180-100-045	LK-222	222	172	170	50	10	31 N (3.2 kgf)	68 N (7.0 kgf)	145 g	25 pcs	150 pcs
180-100-046	LK-335	335	250	238	85	20	37 N (3.8 kgf)	83 N (8.5 kgf)	185 g	25 pcs	150 pcs
180-100-047	LK-380	380	280	269	100	19	35 N (3.6 kgf)	83 N (8.5 kgf)	205 g	25 pcs	150 pcs

Installation (1) LK-222, LK-335 (Wooden Door)



Installation (2) LK-335, LK-380 (Acrylic Door)



	Opening Angle θ	L ₁	A	X	Y	Door Weight
LK-222 (1 pair)	90°	222	70	20	235	Max. 2.5 kg
	85°	222	75	20	240	Max. 2.7 kg
	75°	222	85	20	251	Max. 3.0 kg
	90°	335	104	20	344	Max. 3.1 kg
LK-335 (1 pair)	85°	335	112	20	351	Max. 3.3 kg
	75°	335	127	20	368	Max. 3.8 kg

	Opening Angle (θ)	α	L ₁	A	X	Y	Door Weight
LK-335	90°	0.5°	335	295	45	38	2.5 kg
	90°	14°	335	295	45	38	3.0 kg
	85°	12°	335	295	45	44	3.3 kg
LK-380	110°	8°	380	330	40	36	2.5 kg
	90°	3.5°	380	335	55	44	3.0 kg
	90°	4°	380	320	41	59	4.0 kg
	80°	7.5°	380	335	56	60	4.3 kg

LID STAY

TEST METHOD 16

L=R

STAINLESS 304 STEEL

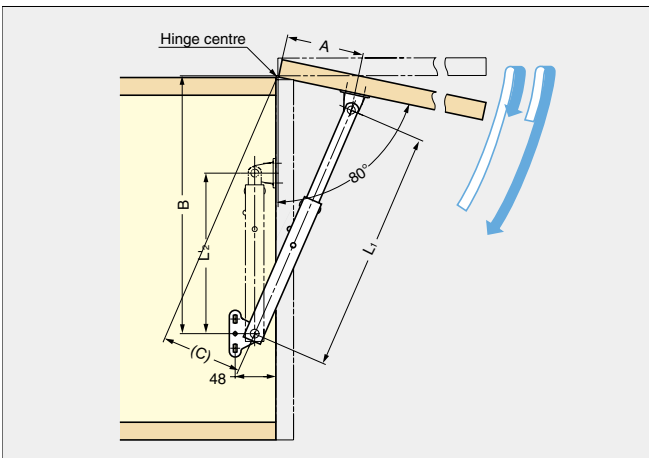
LB-200A, LB-350A, LB-500A



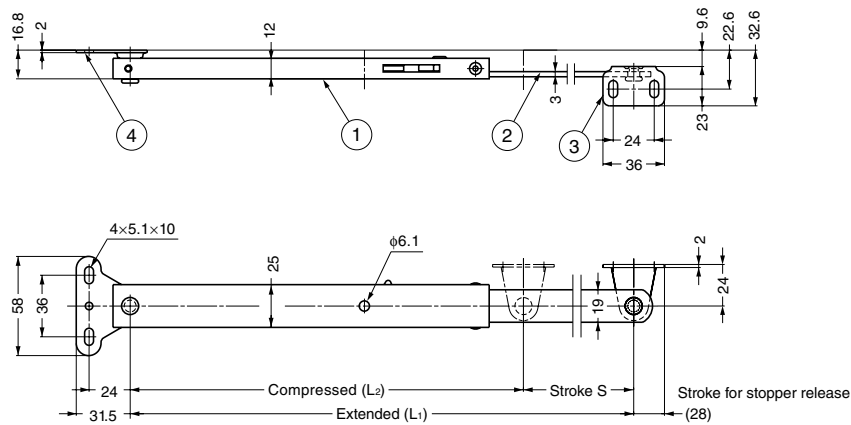
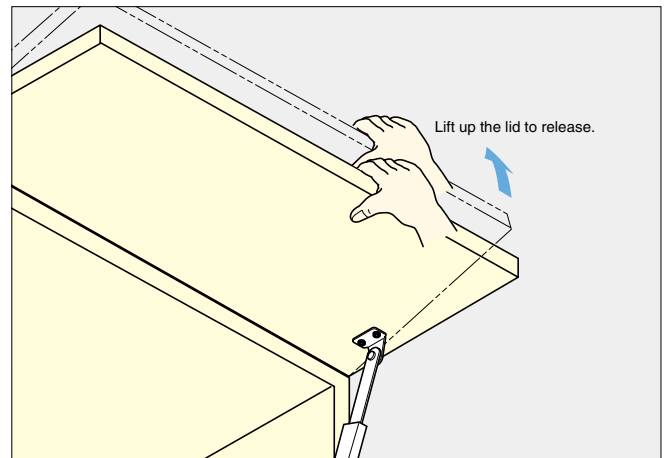
Features

- Can be used singly or in pairs.
- Door flap locks in opened position. To release, push door flap into fully opened position.
- When closed, the extendible section of the arm is stored inside the body, allowing the cabinet interior to be used effectively.
- Door flap can be locked into place using a pin or similar item that will fit in the hole.
- Non-handed.

Installation



Stopper Release



No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Satin
②	Arm	Stainless Steel (SUS304)	Satin
③	Arm Bracket	Stainless Steel (SUS304)	Satin
④	Case Bracket	Stainless Steel (SUS304)	Satin

Item Code	Item Name	L ₁	L ₂	S	A	B	C	Load Capacity	Weight	Box	Carton
180-014-929	LB-200A	200	163	45	56	219	59.7	294 N/pc (30 kgf/pc)	234 g	10 pcs	40 pcs
180-100-122	LB-350A	350	230	120	128	364	129.9	245 N/pc (25 kgf/pc)	314 g	10 pcs	40 pcs
180-014-928	LB-500A	500	305	195	195	510	194.5	196 N/pc (20 kgf/pc)	410 g	10 pcs	20 pcs

LID STAY (W/ LOCK)

TEST METHOD 16

L=R

STAINLESS 304 STEEL

LSP-195B, LSP-270B

LID SUPPORTS

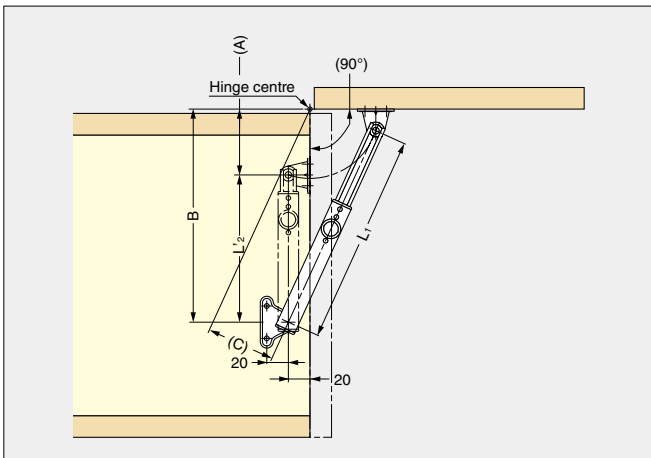
LID STAY (W/ LOCK)



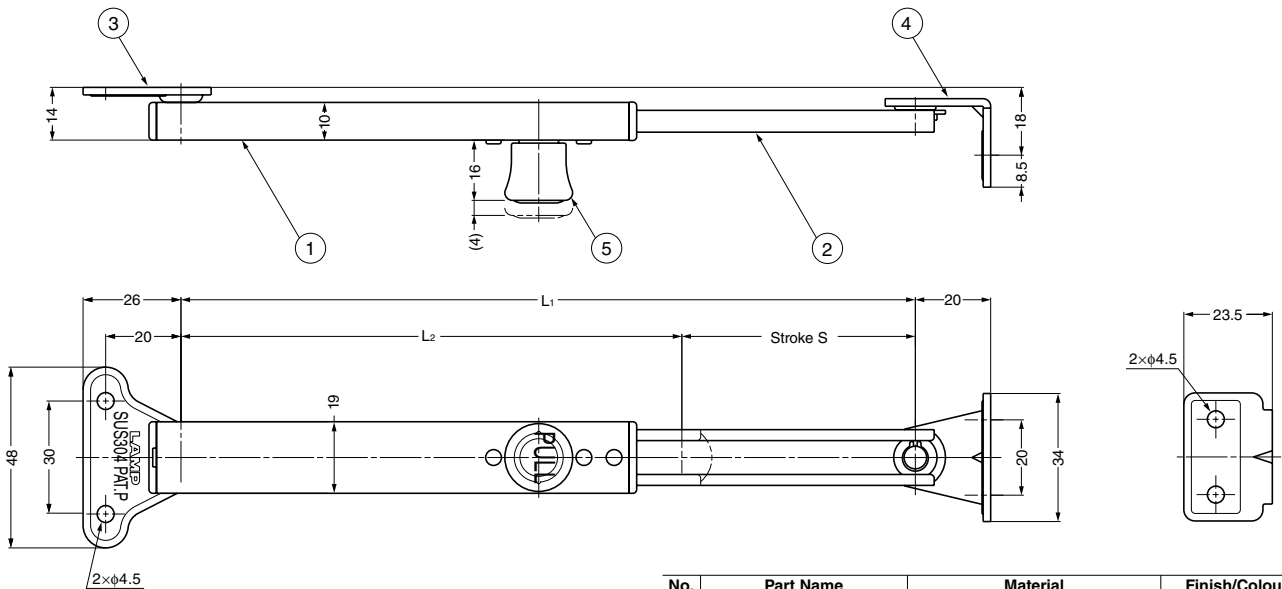
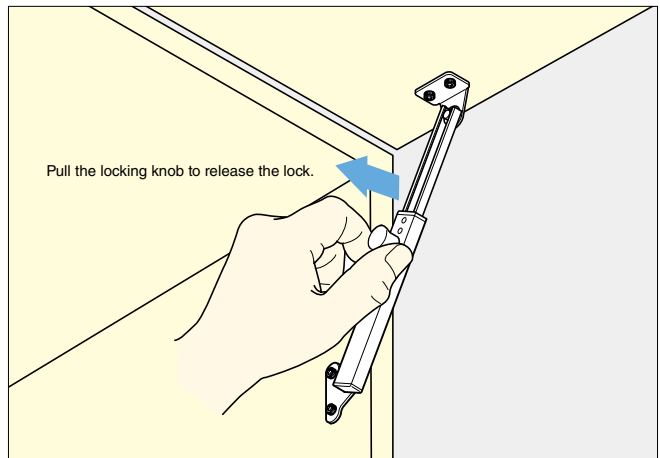
Features

- Can be used singly or in pairs.
- Door flap automatically locks in fully opened position. To release, pull the locking knob.
- When closed, the extendible section of the arm is stored inside the body, allowing the cabinet interior to be used effectively.
- Has same length as L-195B and L-270B.
- Resin and metal components can be separated.
- Non-handed.

Installation



Lock Release



No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Satin
②	Arm	Stainless Steel (SUS304)	Satin
③	Case Bracket	Stainless Steel (SUS304)	Satin
④	Arm Bracket	Stainless Steel (SUS304)	Satin
⑤	Locking Knob	Polyacetal (POM)	Dark Grey

Item Code	Item Name	L ₁	L ₂	S	A	B	C	Load Capacity	Weight	Box	Carton	
180-100-358	LSP-195B	195	133	62	61	197	63.8	294 N/pc	30 kgf/pc	127 g	6 pcs	60 pcs
180-100-357	LSP-270B	270	170	100	92	265	91.9			147 g	6 pcs	60 pcs

MULTI-ANGLE LID STAY (W/ LOCK)



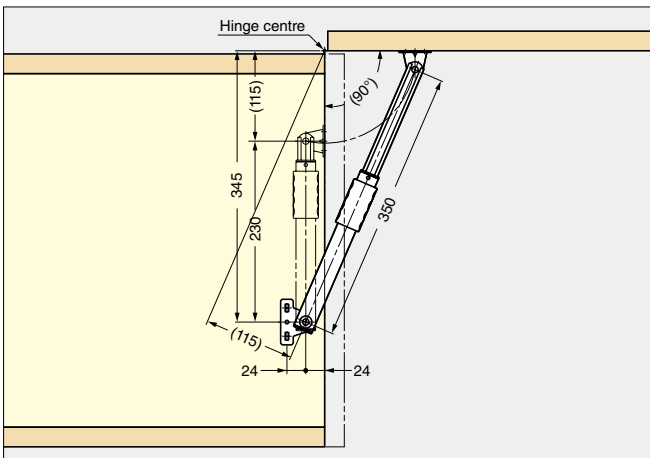
L-FS350A



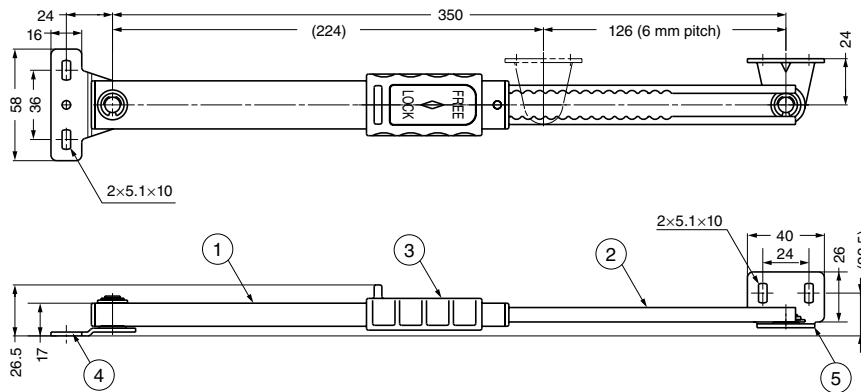
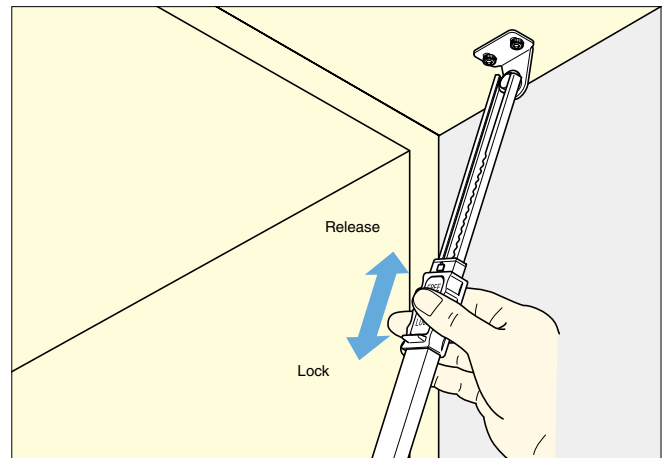
Features

- Can be used singly or in pairs.
- Door flap can be locked at multiple angles. By sliding the arm to the desired length, the stay will lock in place.
- When closed, the extendible section of the arm is stored inside the body, allowing the cabinet interior to be used effectively.
- Same length as LB-350A.
- Resin and metal components can be separated.
- Non-handed.

Installation



Lock and Release



No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Satin
②	Arm	Stainless Steel (SUS304)	Satin
③	Lock Lever	Polyacetal (POM)	Dark Grey
④	Case Bracket	Stainless Steel (SUS304)	Satin
⑤	Arm Bracket	Stainless Steel (SUS304)	Satin

Item Code	Item Name	Load Capacity	Weight	Box	Carton
180-100-617	L-FS350A	294 N/pc	30 kgf/pc	5 pcs	50 pcs



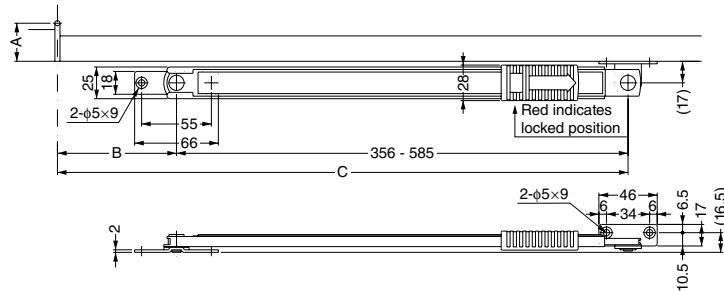
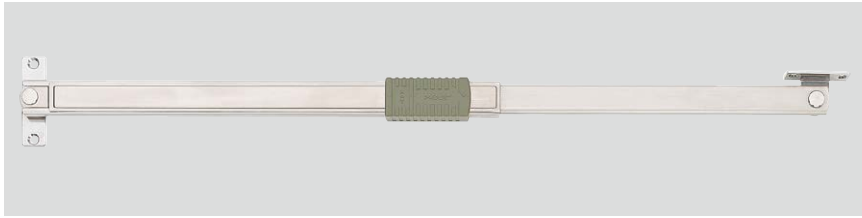
MULTI-ANGLE LID STAY (W/ LOCK)



U3012HL

Features

- Locks the lid at multiple angles with the lock lever.
- Slide the lever to lock / unlock.
- The locking mechanism prevents accidental fall of the flap.
- Can be used singly or in pairs.
- Non-Handed.
- Door opening angle: Max. 100°
- Recommended door size:
Height – Max. 2000 mm.
Width – 600 - 910 mm.
Thickness – 25 - 45 mm.
Weight – Max. 20 kg.



Dimensions for 90° door opening angle

A	30	35	40	45	50
B	160	160	160	160	155
C	525	520	515	510	505

Item Code	Item Name	Weight	Box	Carton
180-109-466	U3012HL (=U3005HL)	338 g	6 pcs	60 pcs

Material	Finish/Colour
304 Stainless Steel	Satin
Polycetal	-

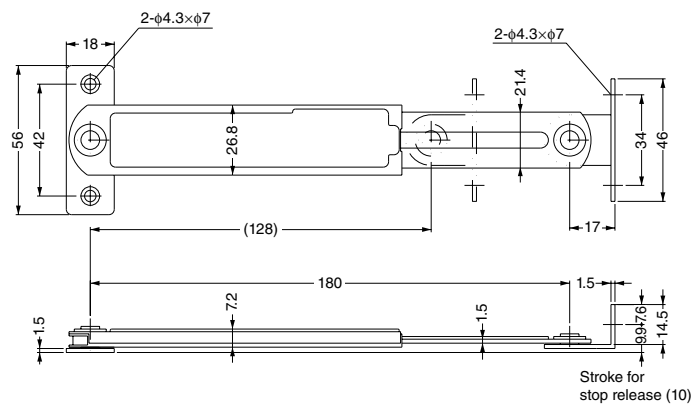
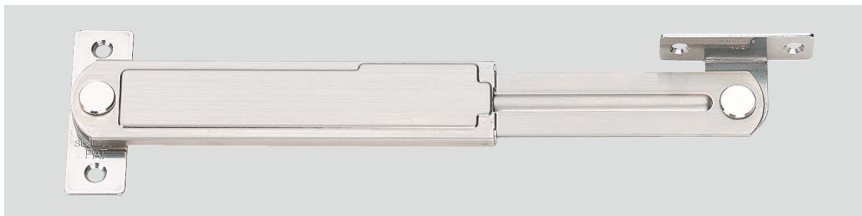
MULTI-ANGLE LID STAY



U-3031HL

Features

- Holds the lid at multiple angles with ratchet inside.
- Non-handed.
- Thin and compact design.
- Open the door fully to release the lock.
- Close the door completely to revert the ratchet function.



Material	Finish
304 Stainless Steel	Satin

Item Code	Item Name	Stop Positions	Door Weight	Weight	Box	Carton
180-109-200	U-3031HL	15	Max. 5 kg	127 g	10 pcs	100 pcs

LID SUPPORTS

MULTI-ANGLE LID STAY (W/ LOCK) / MULTI-ANGLE LID STAY

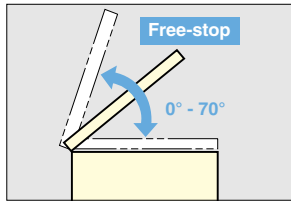
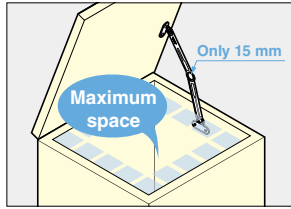
FREE-STOP STAY

STAINLESS
430
STEEL

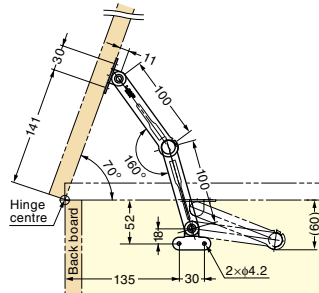
S-100T30



S-100T30R



Installation (For Top-opening)



Features

- Friction allows door flap to be held in place at desired angle.
- Compact design allows for effective use of interior space.
- Can be used with top-opening doors, upward-opening doors and downward-opening doors.

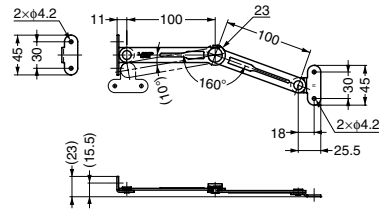
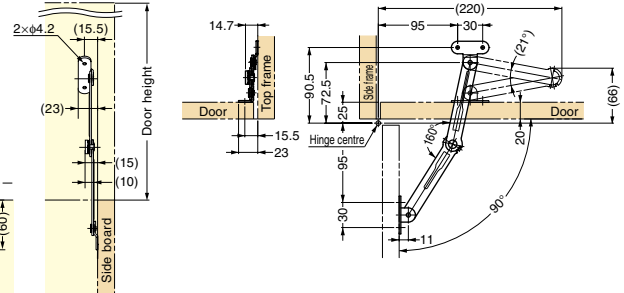
Remarks

Opening angle changes depending on installation position.

Example Chart for the Below Installation

Door Height	Door Weight (1 pc)	Door Weight (1 pair)
200	Max. 3.9 kg	Max. 7.8 kg
250	Max. 3.1 kg	Max. 6.2 kg
300	Max. 2.6 kg	Max. 5.2 kg
350	Max. 2.2 kg	Max. 4.4 kg
400	Max. 1.9 kg	Max. 3.8 kg
450	Max. 1.7 kg	Max. 3.4 kg
500	Max. 1.5 kg	Max. 3.0 kg

Installation (For Horizontal Opening)



Item Code	Item Name	Type	Material	Finish	Torque Moment/piece	Weight	Box	Carton
180-011-966	S-100T30R	Right	Stainless Steel (SUS430)	Mirror	3 ^{+20%} N·m	100 g	30 pcs	120 pcs
180-011-967	S-100T30L	Left	Stainless Steel (SUS430)	Mirror	(30.6 ^{+20%} kgf·cm)	100 g	30 pcs	120 pcs

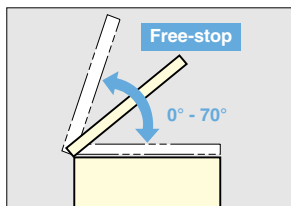
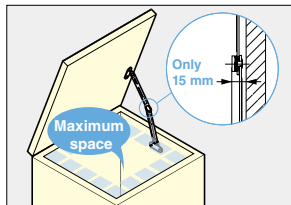
FREE-STOP STAY

STAINLESS
430
STEEL

S-52T15



S-52T15R



Features

- Friction allows door flap to be held in place at desired angle.
- Compact design allows for effective use of interior space.

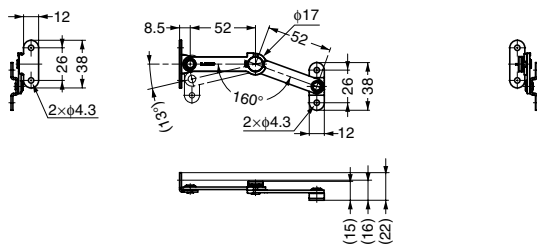
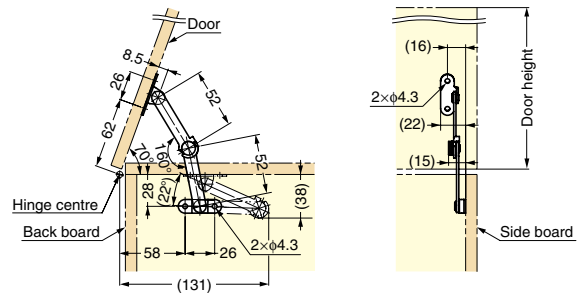
Remarks

Opening angle changes depending on installation position.

Example Chart for the Below Installation

Door Height	Door Weight (1 pc)	Door Weight (1 pair)
200	Max. 1.8 kg	Max. 3.6 kg
250	Max. 1.4 kg	Max. 2.8 kg
300	Max. 1.2 kg	Max. 2.4 kg
350	Max. 1.0 kg	Max. 2.0 kg
400	Max. 0.9 kg	Max. 1.8 kg

Installation



Item Code	Item Name	Type	Material	Finish	Torque Moment/piece	Weight	Box	Carton
180-023-579	S-52T15R	Right	Stainless Steel (SUS430)	Mirror	1.5 ^{+20%} N·m	40 g	25 pcs	200 pcs
180-023-580	S-52T15L	Left	Stainless Steel (SUS430)	Mirror	(15.3 ^{+20%} kgf·cm)	40 g	25 pcs	200 pcs



S-TAR

FREE-STOP STAY (ONE WAY)

LID SUPPORTS

FREE-STOP STAY (ONE WAY)



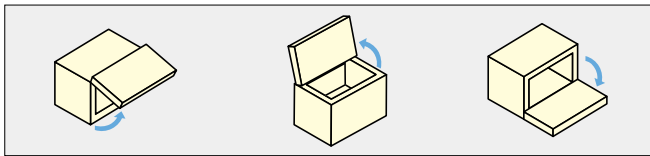
S-TAR-2030R



S-TAR-2030R



S-TAR-10R



Features

- Torque stay for upward-opening, downward-opening and top-opening door flaps.
- Free-stop: door flaps holds position at any desired angle.
- One way-torque: torque only occurs in one direction, making door flap easy to open.
- Torque adjustable.
- Successfully passed 30,000 open/close cycles in a private test.

Remarks

- Operating temperature : 0°C - 40°C
- The torque may vary depending on the temperature of the operating environment. Torque adjustment should be done at room temperature.
- If there is a reduction in the torque, please readjust it.

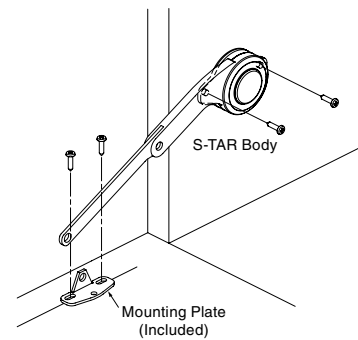
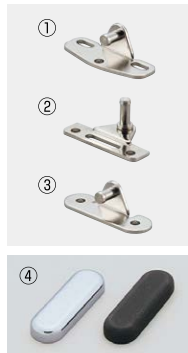
Parts Included

- Mounting plate
- Countersunk head tapping screw 4x20
- Binding head tapping screw 3.5x15
- Allen key 4

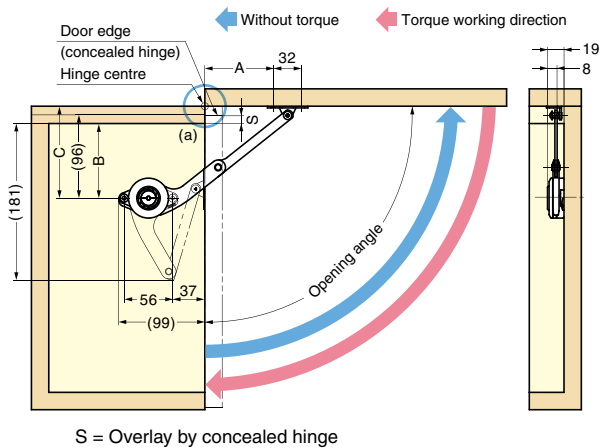
Optional Parts

- ① Mounting plate NSDX-CZ (P.522)
- ② Mounting plate NSDX-AZ for 20 mm aluminium frame (P.522)
- ③ Mounting plate NSDX-GZ for glass door (P.522)
- ④ SDS-50G for glass door (P.522)

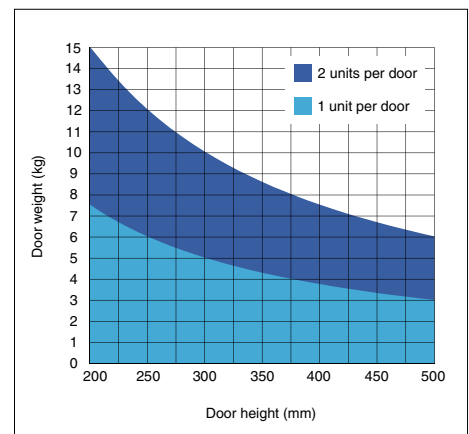
Optional Parts ①-④



Installation (Upward-opening)



Door Size Ranges (Upward-opening)

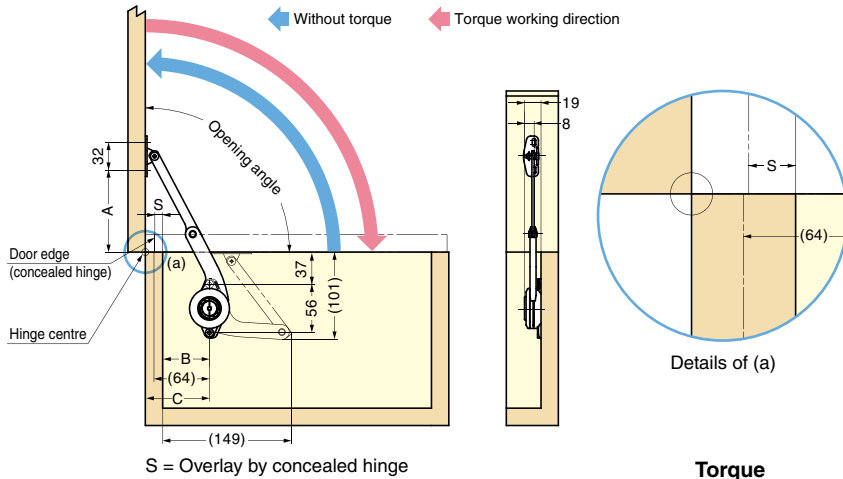


Hinge Type	Opening Angle	A	B	C
Concealed Hinge	80°	98	105-S	-
Concealed Hinge	90°	88	105-S	-
Concealed Hinge	100°	80	105-S	-
Single Knuckle Hinge	80°	90	-	109
Single Knuckle Hinge	90°	77	-	109
Single Knuckle Hinge	100°	66	-	109

Torque

- With 1 stay
Torque = Max. 7.4 N-m (75 kgf-cm)
- With 2 stays, Max. torque is 14.8 N-m (150 kgf-cm).

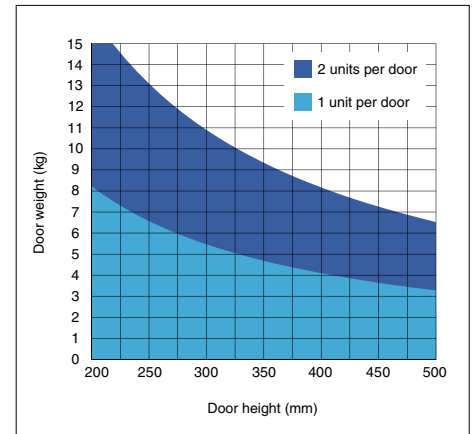
Installation (Top-opening)



S = Overlay by concealed hinge

Hinge	Opening Angle	A	B	C
Concealed Hinge	70°	114	73-S	-
Concealed Hinge	90°	98	73-S	-
Single Knuckle Hinge	70°	115	-	77
Single Knuckle Hinge	90°	93	-	77

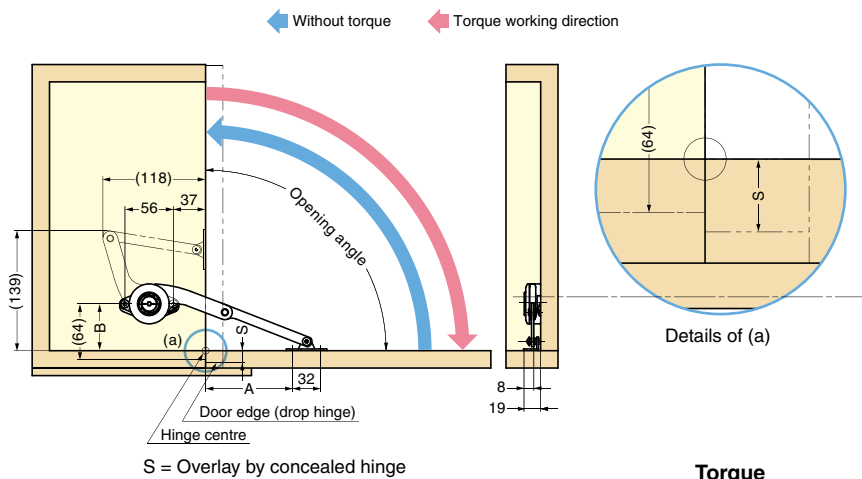
Door Size Ranges (Top-opening)



Torque

- With 1 stay
Torque = Max. 8.1 N·m (82 kgf·cm)
- With 2 stays, Max. torque is 16.2 N·m (164 kgf·cm).

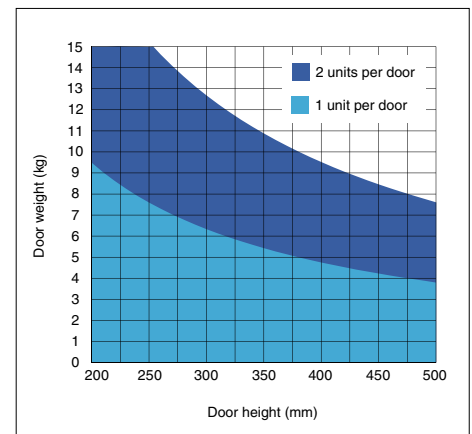
Installation (Downward-opening)



S = Overlay by concealed hinge

Hinge	Opening Angle	A	B
Concealed Hinge	90°	99	70-S
Single Knuckle Hinge	90°	100	51

Door Size Ranges (Downward-opening)



Torque

- With 1 stay
Torque = Max. 9.3 N·m (94 kgf·cm)
- With 2 stays, Max. torque is 18.6 N·m (188 kgf·cm).

Body

Item Code	Item Name	Material	Type	Opening	Weight	Box	Carton
180-028-991	S-TAR-2030R	Zinc Alloy (ZDC), Steel	Right	Upward-opening, Top-opening	266 g	20 pcs	40 pcs
180-028-990	S-TAR-2030L	Zinc Alloy (ZDC), Steel	Left	Upward-opening, Top-opening	266 g	20 pcs	40 pcs
180-028-993	S-TAR-10R	Zinc Alloy (ZDC), Steel	Right	Downward-opening	266 g	20 pcs	40 pcs
180-028-992	S-TAR-10L	Zinc Alloy (ZDC), Steel	Left	Downward-opening	266 g	20 pcs	40 pcs

Drop Hinge (Sold Separately) (P.411-412)

Item Code	Item Name	Type	Finish/Colour
170-090-471	SDH-001	-	Nickel
170-010-648	SDH-001BL	-	Black
170-016-331	SDH-G	Glass Door	Nickel

SDH-G: The face plate also needed.

Face Plate and Spacer of SDS for Glass Door (Sold Separately)

Please use with NSDX-GZ below.

Item Code	Item Name	Material	Finish/Colour
180-100-260	SDS-50G-CR	Zinc Alloy (ZDC)/ABS	Chrome/Black
180-928-046	SDS-50G-BL	Zinc Alloy (ZDC)/ABS	Black

Mounting Plate (Sold Separately) (P.522)

Item Code	Item Name	Type
180-109-460	NSDX-CZ	Clip Type
180-109-019	NSDX-AZ	For 20 mm Aluminium Frame Door
180-109-459	NSDX-GZ	For Glass Door



S-YT

SPRING LOADED LID STAY

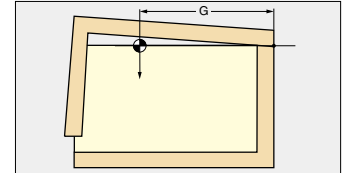
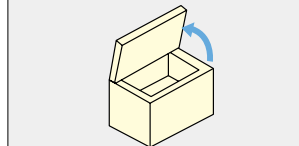


Features

- Built-in spring mechanism makes opening lids feel light. Holds in fully open position.
- 2 different kinds of spring power available.
- Both body and spring are made out of SUS304 stainless steel for excellent corrosion resistance.
- Easy to separate resin and metal components.

Remarks

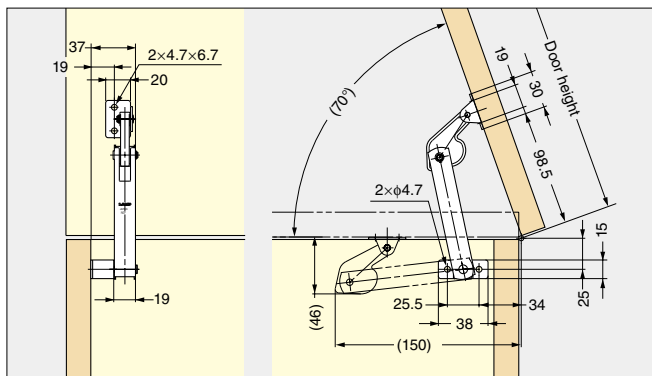
Do not use with concealed hinges.



LID SUPPORTS

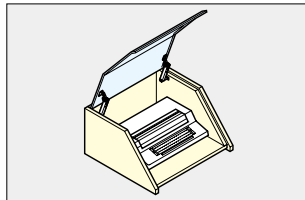
SPRING LOADED LID STAY

SIDE MOUNT TYPE

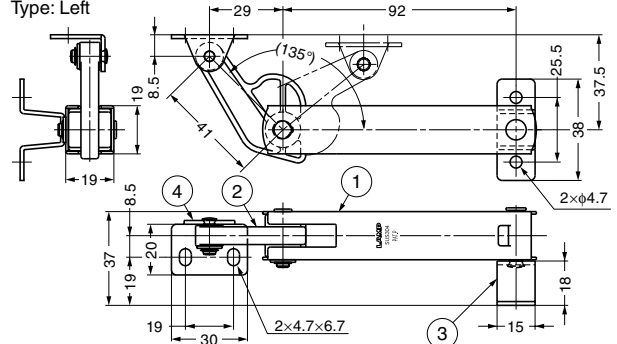


Installation for 70° opening (Max. 80°)

Application Example



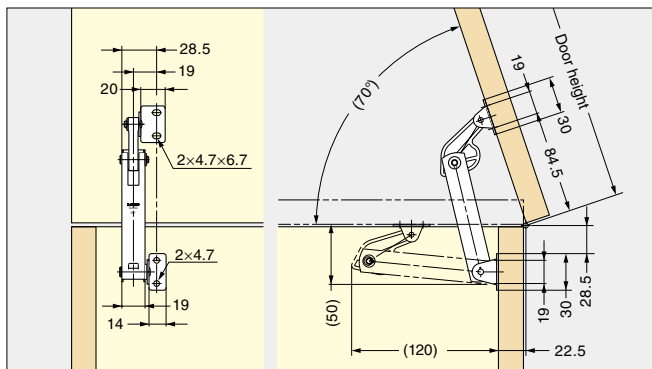
Type: Left



No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Mirror
②	Arm	Polyacetal (POM)	Black
③	Case Bracket	Stainless Steel (SUS304)	Mirror
④	Arm Bracket	Stainless Steel (SUS304)	Mirror

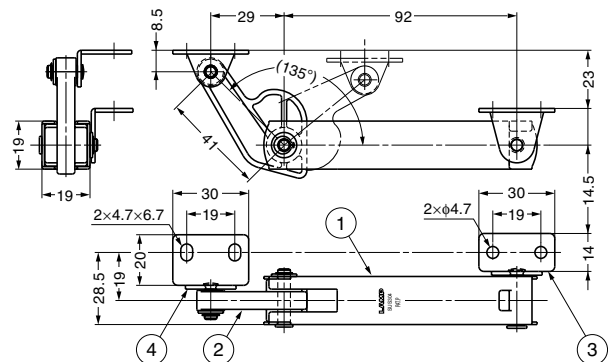
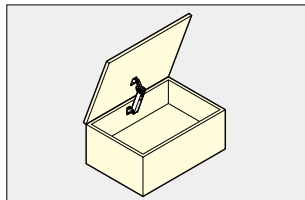
Item Code	Item Name	Type	Spring Tension	Approx. Torque Moment	Weight	Box	Carton
180-100-083	S-YT01R	Right	Soft	Max. 2.94 N·m/pc (30 kgf·cm/pc)	130 g	10 pcs	100 pcs
180-100-084	S-YT01L	Left	Soft		130 g	10 pcs	100 pcs
180-100-085	S-YT02R	Right	Hard	Max. 3.92 N·m/pc (40 kgf·cm/pc)	130 g	10 pcs	100 pcs
180-100-086	S-YT02L	Left	Hard		130 g	10 pcs	100 pcs

BACK PANEL MOUNT TYPE



Installation for 70° opening (Max. 80°)

Application Example



No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Mirror
②	Arm	Polyacetal (POM)	Black
③	Case Bracket	Stainless Steel (SUS304)	Mirror
④	Arm Bracket	Stainless Steel (SUS304)	Mirror

Item Code	Item Name	Spring Tension	Approx. Torque Moment	Weight	Box	Carton
180-100-081	S-YT01S	Soft	Max. 2.94 N·m/pc (30 kgf·cm/pc)	130 g	10 pcs	100 pcs
180-100-082	S-YT02S	Hard		130 g	10 pcs	100 pcs



HEAVY DUTY SPRING LOADED LID STAY



S-AT



Side mount type



Back panel mount type

Features

- Lift assist: makes lids feel lighter and easier to open.
- Free stop: holds position at any angle from 10° - 80°.
- Compact design allows interior to be used effectively.
- Both back mount and side mount type available. Both are non-handed.
- Two different types of strength available.
- Successfully passed 10,000 open/close cycles in a private test.

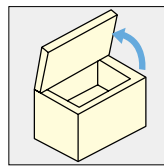
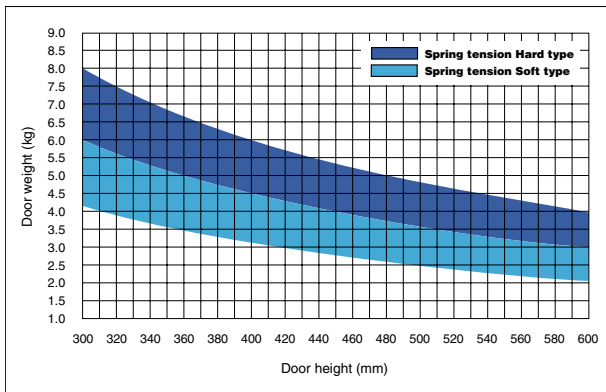
Remarks

Do not use with concealed hinges.

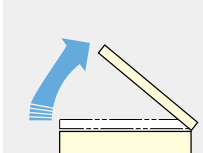
Torque

- With 1 piece
Torque = 6.1 - 8.8 N-m (62 - 90 kgf-cm)
... S-AT01(S)
- Torque = 8.8 - 11.8 N-m (90 - 120 kgf-cm)
... S-AT02(S)
- With 2 pieces, the torque will be doubled.

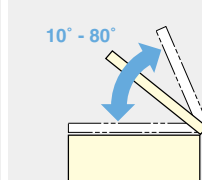
Selection Graph



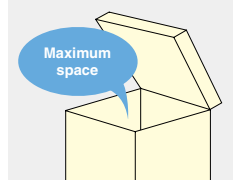
• Easy Operation with Power Assist



• Free-Stop



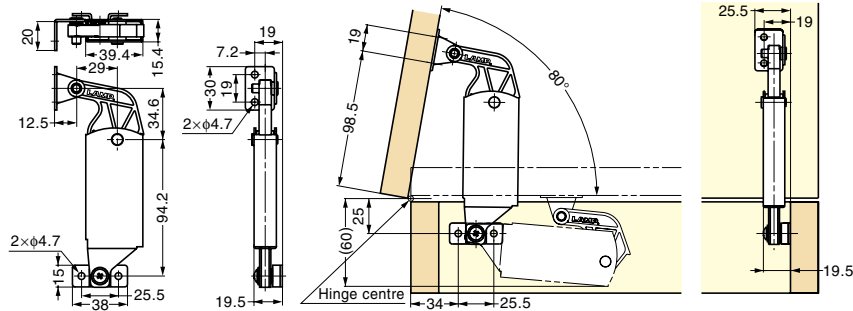
• Compact



SIDE MOUNT TYPE



S-AT01, S-AT02

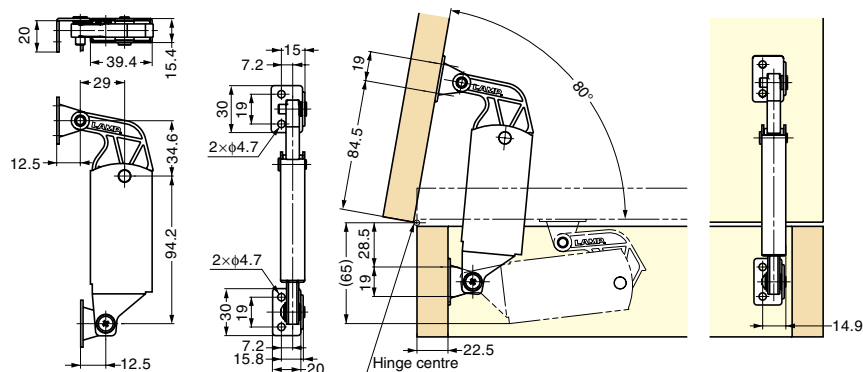


Item Code	Item Name	Spring Tension	Material	Finish	Torque Moment		Weight	Box	Carton
180-017-544	S-AT01	Soft	Stainless Steel (SUS430)/Polyacetal (POM)	Plain	6.1 - 8.8 N-m/pc	62 - 90 kgf-cm/pc	195 g	10 pcs	50 pcs
180-017-545	S-AT02	Hard	Stainless Steel (SUS430)/Polyacetal (POM)	Plain	8.8 - 11.8 N-m/pc	90 - 120 kgf-cm/pc	195 g	10 pcs	50 pcs

BACK PANEL MOUNT TYPE



S-AT01S, S-AT02S



Item Code	Item Name	Spring Tension	Material	Finish	Torque Moment		Weight	Box	Carton
180-017-546	S-AT01S	Soft	Stainless Steel (SUS430)/Polyacetal (POM)	Plain	6.1 - 8.8 N-m/pc	62 - 90 kgf-cm/pc	195 g	10 pcs	50 pcs
180-017-547	S-AT02S	Hard	Stainless Steel (SUS430)/Polyacetal (POM)	Plain	8.8 - 11.8 N-m/pc	90 - 120 kgf-cm/pc	195 g	10 pcs	50 pcs

HEAVY DUTY SPRING LOADED LID STAY



S-AT02W

LID SUPPORTS

HEAVY DUTY SPRING LOADED LID STAY



Features

- Approximately twice the torque of regular S-AT with a side-mount installation.
- Lift assist: makes lids feel lighter and easier to open.
- Free stop: holds position at any angle from 10° - 80°.
- Compact design allows interior to be used effectively.
- Both back mount and side mount type available. Both are non-handed.
- Successfully passed 10,000 open/close cycles in a private test.

Parts Included

- Bracket for side mount
- Truss head screw M5x6 (SUS) for side mount bracket

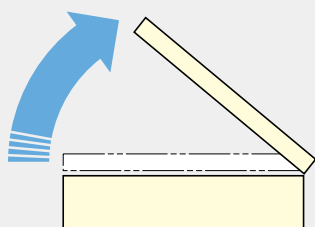
Recommended Screw

Truss head screw M5

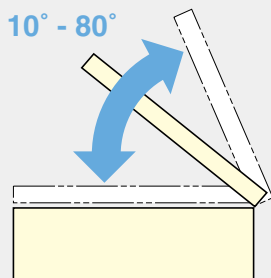
Remarks

Do not use with concealed hinge.

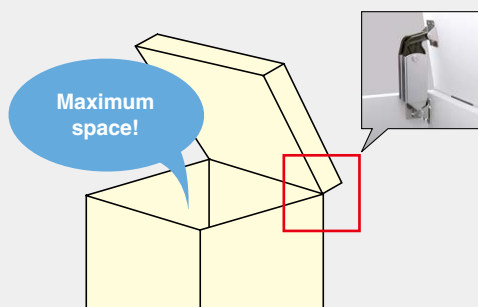
• Easy Operation with Power Assist



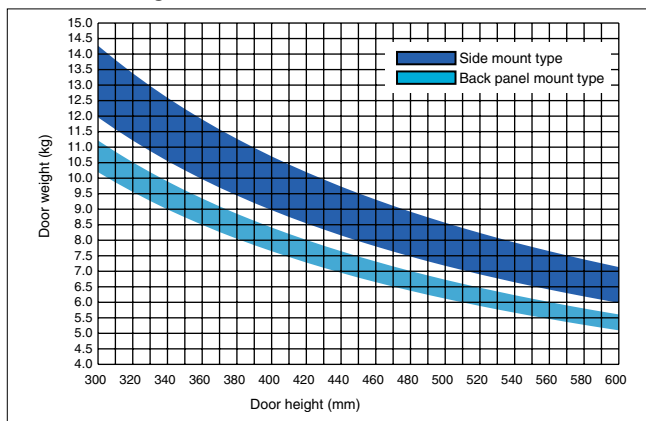
• Free-Stop



• Compact



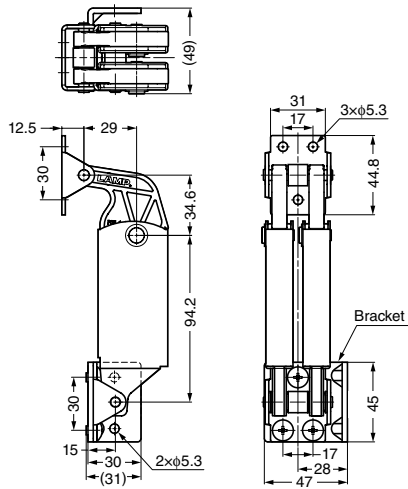
Door Size Ranges



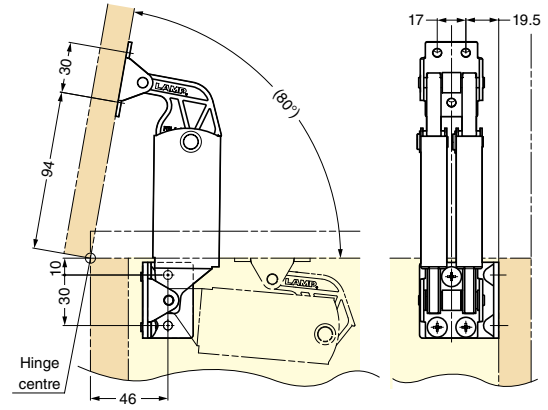
Torque

- With 1 stay
 - Torque (Side mount) = 17.6 - 21.0 N·m (180 - 214 kgf·cm)
 - Torque (Back panel mount) = 15.0 - 16.5 N·m (153 - 168 kgf·cm)
- With 2 stays, the torque will be doubled.

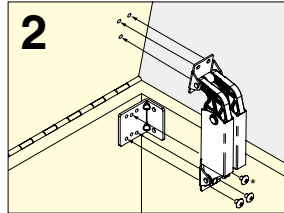
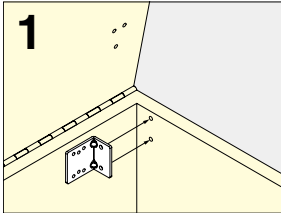
SIDE MOUNT TYPE



Installation

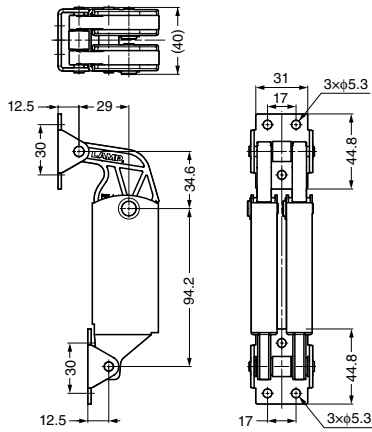


How to Install

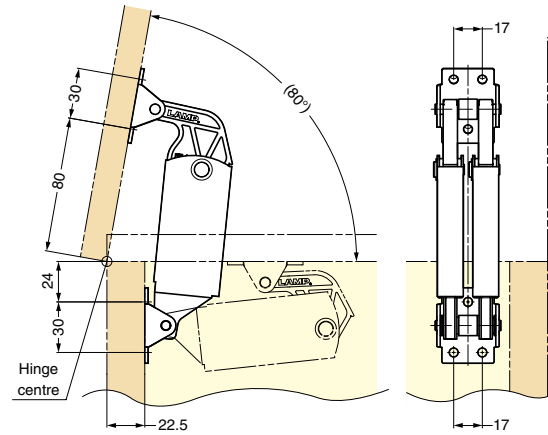


*Only these three screws are included.

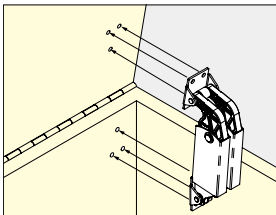
BACK PANEL MOUNT TYPE



Installation



How to Install



*Mounting screws are not included.

Item Code	Item Name	Material	Finish/Colour	Type	Torque Moment		Weight	Carton
180-025-461	S-AT02W	Stainless Steel (SUS430) /Polyacetal (POM)	Plain/Black	Side Mount Type	17.6 - 21.0 N-m/pc	180 - 214 kgf-cm/pc	490 g	10 pcs
				Back Panel Mount Type	15.0 - 16.5 N-m/pc	153 - 168 kgf-cm/pc		

Wooden Door Weight Table

The below density is only for reference and it may differ depending on their material and specification.

Door Weight (kg)

Door Type Door Thickness mm Door Size mm	MDF (Density 0.8)					Particle Board (Density 0.6)					Plywood (Density 0.6)					Flush (Density 0.5)				
	16	19	22	25	35	16	19	22	25	35	16	19	22	25	35	16	19	22	25	35
300x 400	1.5	1.8	2.1	2.4	3.4	1.2	1.4	1.6	1.8	2.5	1.2	1.4	1.6	1.8	2.5	1.0	1.1	1.3	1.5	2.1
300x 500	1.9	2.3	2.6	3.0	4.2	1.4	1.7	2.0	2.3	3.2	1.4	1.7	2.0	2.3	3.2	1.2	1.4	1.7	1.9	2.6
300x 600	2.3	2.7	3.2	3.6	5.0	1.7	2.1	2.4	2.7	3.8	1.7	2.1	2.4	2.7	3.8	1.4	1.7	2.0	2.3	3.2
300x 700	2.7	3.2	3.7	4.2	5.9	2.0	2.4	2.8	3.2	4.4	2.0	2.4	2.8	3.2	4.4	1.7	2.0	2.3	2.6	3.7
300x 800	3.1	3.6	4.2	4.8	6.7	2.3	2.7	3.2	3.6	5.0	2.3	2.7	3.2	3.6	5.0	1.9	2.3	2.6	3.0	4.2
300x 900	3.5	4.1	4.8	5.4	7.6	2.6	3.1	3.6	4.1	5.7	2.6	3.1	3.6	4.1	5.7	2.2	2.6	3.0	3.4	4.7
300x1000	3.8	4.6	5.3	6.0	8.4	2.9	3.4	4.0	4.5	6.3	2.9	3.4	4.0	4.5	6.3	2.4	2.9	3.3	3.8	5.3
400x 500	2.6	3.0	3.5	4.0	5.6	1.9	2.3	2.6	3.0	4.2	1.9	2.3	2.6	3.0	4.2	1.6	1.9	2.2	2.5	3.5
400x 600	3.1	3.6	4.2	4.8	6.7	2.3	2.7	3.2	3.6	5.0	2.3	2.7	3.2	3.6	5.0	1.9	2.3	2.6	3.0	4.2
400x 700	3.6	4.3	4.9	5.6	7.8	2.7	3.2	3.7	4.2	5.9	2.7	3.2	3.7	4.2	5.9	2.2	2.7	3.1	3.5	4.9
400x 800	4.1	4.9	5.6	6.4	9.0	3.1	3.6	4.2	4.8	6.7	3.1	3.6	4.2	4.8	6.7	2.6	3.0	3.5	4.0	5.6
400x 900	4.6	5.5	6.3	7.2	10.1	3.5	4.1	4.8	5.4	7.6	3.5	4.1	4.8	5.4	7.6	2.9	3.4	4.0	4.5	6.3
400x1000	5.1	6.1	7.0	8.0	11.2	3.8	4.6	5.3	6.0	8.4	3.8	4.6	5.3	6.0	8.4	3.2	3.8	4.4	5.0	7.0
400x1100	5.6	6.7	7.7	8.8	12.3	4.2	5.0	5.8	6.6	9.2	4.2	5.0	5.8	6.6	9.2	3.5	4.2	4.8	5.5	7.7
400x1200	6.1	7.3	8.4	9.6	13.4	4.6	5.5	6.3	7.2	10.1	4.6	5.5	6.3	7.2	10.1	3.8	4.6	5.3	6.0	8.4
500x 600	3.8	4.6	5.3	6.0	8.4	2.9	3.4	4.0	4.5	6.3	2.9	3.4	4.0	4.5	6.3	2.4	2.9	3.3	3.8	5.3
500x 700	4.5	5.3	6.2	7.0	9.8	3.4	4.0	4.6	5.3	7.4	3.4	4.0	4.6	5.3	7.4	2.8	3.3	3.9	4.4	6.1
500x 800	5.1	6.1	7.0	8.0	11.2	3.8	4.6	5.3	6.0	8.4	3.8	4.6	5.3	6.0	8.4	3.2	3.8	4.4	5.0	7.0
500x 900	5.8	6.8	7.9	9.0	12.6	4.3	5.1	5.9	6.8	9.5	4.3	5.1	5.9	6.8	9.5	3.6	4.3	5.0	5.6	7.9
500x1000	6.4	7.6	8.8	10.0	14.0	4.8	5.7	6.6	7.5	10.5	4.8	5.7	6.6	7.5	10.5	4.0	4.8	5.5	6.3	8.8
500x1100	7.0	8.4	9.7	11.0	15.4	5.3	6.3	7.3	8.3	11.6	5.3	6.3	7.3	8.3	11.6	4.4	5.2	6.1	6.9	9.6
500x1200	7.7	9.1	10.6	12.0	16.8	5.8	6.8	7.9	9.0	12.6	5.8	6.8	7.9	9.0	12.6	4.8	5.7	6.6	7.5	10.5
500x1300	8.3	9.9	11.4	13.0	18.2	6.2	7.4	8.6	9.8	13.7	6.2	7.4	8.6	9.8	13.7	5.2	6.2	7.2	8.1	11.4
500x1400	9.0	10.6	12.3	14.0	19.6	6.7	8.0	9.2	10.5	14.7	6.7	8.0	9.2	10.5	14.7	5.6	6.7	7.7	8.8	12.3
500x1500	9.6	11.4	13.2	15.0	21.0	7.2	8.6	9.9	11.3	15.8	7.2	8.6	9.9	11.3	15.8	6.0	7.1	8.3	9.4	13.1
500x1600	10.2	12.2	14.1	16.0	22.4	7.7	9.1	10.6	12.0	16.8	7.7	9.1	10.6	12.0	16.8	6.4	7.6	8.8	10.0	14.0
500x1700	10.9	12.9	15.0	17.0	23.8	8.2	9.7	11.2	12.8	17.9	8.2	9.7	11.2	12.8	17.9	6.8	8.1	9.4	10.6	14.9
500x1800	11.5	13.7	15.8	18.0	25.2	8.6	10.3	11.9	13.5	18.9	8.6	10.3	11.9	13.5	18.9	7.2	8.6	9.9	11.3	15.8

LID SUPPORTS

DOOR WEIGHT TABLE

Glass Door Weight Table

Door Weight (kg)

Glass Door Thickness mm Door Height mm	Door Width mm	4 (Density 2.5)							5 (Density 2.5)							6 (Density 2.5)						
		300	400	500	600	700	800	900	300	400	500	600	700	800	900	300	400	500	600	700	800	900
300	300	0.9	1.2	1.5	1.8	2.1	2.4	2.7	1.1	1.5	1.9	2.3	2.6	3.0	3.4	1.4	1.8	2.3	2.7	3.2	3.6	4.1
350	350	1.1	1.4	1.8	2.1	2.5	2.8	3.2	1.3	1.8	2.2	2.6	3.1	3.5	3.9	1.6	2.1	2.6	3.2	3.7	4.2	4.7
400	400	1.2	1.6	2.0	2.4	2.8	3.2	3.6	1.5	2.0	2.5	3.0	3.5	4.0	4.5	1.8	2.4	3.0	3.6	4.2	4.8	5.4
450	450	1.4	1.8	2.3	2.7	3.2	3.6	4.1	1.7	2.3	2.8	3.4	3.9	4.5	5.1	2.0	2.7	3.4	4.1	4.7	5.4	6.1
500	500	1.5	2.0	2.5	3.0	3.5	4.0	4.5	1.9	2.5	3.1	3.8	4.4	5.0	5.6	2.3	3.0	3.8	4.5	5.3	6.0	6.8
550	550	1.7	2.2	2.8	3.3	3.9	4.4	5.0	2.1	2.8	3.4	4.1	4.8	5.5	6.2	2.5	3.3	4.1	5.0	5.8	6.6	7.4
600	600	1.8	2.4	3.0	3.6	4.2	4.8	5.4	2.3	3.0	3.8	4.5	5.3	6.0	6.8	2.7	3.6	4.5	5.4	6.3	7.2	8.1
650	650	2.0	2.6	3.3	3.9	4.6	5.2	5.9	2.4	3.3	4.1	4.9	5.7	6.5	7.3	2.9	3.9	4.9	5.9	6.8	7.8	8.8
700	700	2.1	2.8	3.5	4.2	4.9	5.6	6.3	2.6	3.5	4.4	5.3	6.1	7.0	7.9	3.2	4.2	5.3	6.3	7.4	8.4	9.5
750	750	2.3	3.0	3.8	4.5	5.3	6.0	6.8	2.8	3.8	4.7	5.6	6.6	7.5	8.4	3.4	4.5	5.6	6.8	7.9	9.0	10.1
800	800	2.4	3.2	4.0	4.8	5.6	6.4	7.2	3.0	4.0	5.0	6.0	7.0	8.0	9.0	3.6	4.8	6.0	7.2	8.4	9.6	10.8
850	850	2.6	3.4	4.3	5.1	6.0	6.8	7.7	3.2	4.3	5.3	6.4	7.4	8.5	9.6	3.8	5.1	6.4	7.7	8.9	10.2	11.5
900	900	2.7	3.6	4.5	5.4	6.3	7.2	8.1	3.4	4.5	5.6	6.8	7.9	9.0	10.1	4.1	5.4	6.8	8.1	9.5	10.8	12.2
950	950	2.9	3.8	4.8	5.7	6.7	7.6	8.6	3.6	4.8	5.9	7.1	8.3	9.5	10.7	4.3	5.7	7.1	8.6	10.0	11.4	12.8
1000	1000	3.0	4.0	5.0	6.0	7.0	8.0	9.0	3.8	5.0	6.3	7.5	8.8	10.0	11.3	4.5	6.0	7.5	9.0	10.5	12.0	13.5
1050	1050	3.2	4.2	5.3	6.3	7.4	8.4	9.5	3.9	5.3	6.6	7.9	9.2	10.5	11.8	4.7	6.3	7.9	9.5	11.0	12.6	14.2
1100	1100	3.3	4.4	5.5	6.6	7.7	8.8	9.9	4.1	5.5	6.9	8.3	9.6	11.0	12.4	5.0	6.6	8.3	9.9	11.6	13.2	14.9
1150	1150	3.5	4.6	5.8	6.9	8.1	9.2	10.4	4.3	5.8	7.2	8.6	10.1	11.5	12.9	5.2	6.9	8.6	10.4	12.1	13.8	15.5